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4 January 2000

Mr. Ron Murawski, SR-6J
Work Assignment Manager
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604

U.S. EPA Contract No.: 68-W7-0026
Work Assignment No.: 050-RXBF-052F
Document Control No.: RFW050-2B-AHDS

Re: Submittal of Periodic Report, H.O.D. Landfill, Antioch, Illinois.

Dear Mr. Murawski:

Roy F. Weston, Inc. (WESTON®) is pleased to submit the periodic report for the oversight provided by EDI Inc. at the H.O.D Landfill, Antioch, Illinois.

Should you have any questions or require additional information, please feel free to contact me at (847) 918-4051.

Very truly yours,

ROY F. WESTON, INC.

Omprakash S. Patel.
Site Manager

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REMEDIAL ACTION OVERSIGHT
PERIODIC REPORT
H.O.D. LANDFILL
ANTIOCH, ILLINOIS

December, 2000

Prepared for

U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604

This document was prepared in accordance with U.S. EPA Contract No. 68-W7-0026, WESTON Region V Response Action Contract (RAC) and contains confidential business information.

Document Control No. RFW050-2B-AHDS

H. O. D. Landfill
Antioch, Illinois
Remedial Construction Oversight

The Remedial Construction Managers for the construction at the H.O.D landfill is RMT Inc. of Madison, Wisconsin. RMT Inc. is contracted to Waste Management, Inc. The subcontractors performing construction are Terra Environmental Construction, of Madison, Wisconsin, and Oakes & Son Excavating, of Madison, Wisconsin. The subcontractors are contracted to RMT Inc. The oversight at the H.O.D Landfill was provided by Joseph D. Corns, of Environmental Design International (EDI), Inc under RAC. EDI Inc, is team subcontractor on the RAC to the Roy F. WESTON Inc. This report summarizes activities conducted until the end of December 2000. The copies of the photographs and field logs are provided in attachments.

29 August 2000

Oakes Excavating completed surveying of well locations and condensate sumps, and continued surveying of landfill cover elevations on a 100-foot grid. Oakes also surveyed in the locations of the waste reconsolidation areas. The crew from Terra Environmental welded lengths of PVC pipe into 300-foot sections for the leachate and landfill gas collection systems. Truckloads of sand and gravel were delivered for the well installation. Throughout the day, Mr. Kirk Solberg of RMT, Inc. informed Mr. Corns of progress and status of the ongoing work.

All work appeared to be in accordance with the U.S. EPA approved design.

30 August 2000

Terra's drill rig was delivered to the site. Terra's safety engineer conducted a safety meeting for the Terra's employees, and then Mr. Solberg of RMT conducted a safety meeting for all personnel who were to be involved in drilling and well installation activities.

Drilling and well installation activities were initiated at approximately 10:00 a.m. At each well location, the drill rig bored through the landfill cover, and through the buried waste, until the underlying soil at the base of the fill was encountered. The soil and waste removed from the boring was piled adjacent to the drill rig, and then removed with a front-end loader and placed in a waiting dump truck. The waste was finally deposited in the northeast waste reconsolidation area.

Wells were constructed in each bore-hole by placing a length of slotted 6" diameter PVC pipe topped by a solid section of 6" diameter PVC pipe into the bore-hole. Coarse gravel was then placed around the pipe to a height 1' above the top of the slotted section. A 2' thick layer of bentonite was then placed on top of the gravel and hydrated with water, sand was

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placed on top of the bentonite to a height within the thickness of the landfill cap, and then a second 2' layer of bentonite was added and hydrated.

On August 30, wells were completed at locations GW-27, GW-30, GW-17, GW-16, GW-15, GW-18, GW-31, GW-32, and GW-24.

Other activities conducted on August 30, 2000 included the stripping and stockpiling of the landfill cap at the northeast waste reconsolidation area by Oakes & Son. By the end of the day, the stripping had not been completed, however, sufficient cover had been stripped to provide a location for waste exposed during the boring operations. This waste was placed in the reconsolidation area and covered each time the dump truck containing the waste was filled. Oakes & Son also formed a roadway to the borrow area to provide vehicular access to that area.

All work appeared to be in accordance with the U.S. EPA approved design.

31 August 2000

Terra continued with well installation as described above. Wells were completed at locations GW-23, GW-20, GW-22, GW-21, GW-34, GW-33, and GW-19. All waste from boring operations was taken to the waste reconsolidation area and covered.

Oakes & Son continued to remove and stockpile cover from the northeast waste reconsolidation area throughout the day. Also on this day, a tree removal company subcontracted to Oakes & Son began removing trees and brush from the borrow area. At approximately mid-day, Oakes & Son performed some exploratory trenching in the waste relocation area, to determine where trees and brush need to be removed in that area.

All work appeared to be in accordance with the U.S. EPA approved design.

1 September 2000

Terra completed the remaining four borings and wells. Borings and wells were completed at locations GW-25, GW-29, GW-28, and GW-26. All borings and wells were completed as previously described. All waste from the borings was transported to the waste reconsolidation area and covered.

Oakes & Son continued to remove and stockpile cover from the waste reconsolidation area. The tree removal contractor continued to remove trees and brush from the borrow area.

On September 5, Terra will decontaminate their drill rig and other equipment in an area to be designated by RMT in the waste reconsolidation area.

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Oakes & Son is to begin waste reconsolidation from the waste relocation area the week of September 5, 2000.

5 September 2000

A meeting was held at the landfill with representatives of RMT, Waste Management, the U.S. EPA, and EDI attending. The progress of the project was discussed, including the previous week's well installation. The future schedule of the project was also discussed, including pipe, pump, and flare installation. A major issue discussed at the meeting was the final elevations of the landfill cover. RMT represented that the original design calculations, based on aerial photographs, showed that the base elevation was 0.6 feet higher than actual elevations. As a result, RMT requested that the final design elevations of the landfill cover be 0.6 feet lower than as specified in the design documents. RMT stated that they would forward requests for design changes to the U.S. EPA.

After the meeting, Ron Murawski of the U.S. EPA, Larry Buechel of Waste Management, and Joe Corns of EDI toured the site, and checked work progress. Activities at the time of the tour included cover removal in the waste reconsolidation area, topsoil removal in the borrow area, tree and brush removal in the waste reconsolidation, delivery of off-road dump-trucks, and welding of plastic piping.

In the afternoon of this day, the mentioned activities continued, and Oakes & Son began surveying in the location of the west-side access road.

All work appeared to be in accordance with the U.S. EPA approved design.

6 September 2000

Oakes & Son dug test pits in the waste relocation area in order to determine the extent of the waste buried north of the landfill property. It was determined that the waste extends 50-60 feet north of the north property boundary, and approximately 500 feet east of the west property boundary. Also, topsoil in the borrow area was being removed and stockpiled. In the late morning, Oakes & Son covered the exploratory trenches in the waste relocation area. Throughout the morning, cover was removed and stockpiled in the waste reconsolidation area. Lastly, a roadway was formed along the west side of the landfill with mobile equipment. The above-described work continued throughout the day.

All work appeared to be in accordance with the U.S. EPA approved design.

7 September 2000

Work completed included removal of cover in the waste reconsolidation area, and excavating and stockpiling of cover material from the borrow area. In late morning, a temporary 20,000-gallon above ground storage tank was delivered to a location near the waste relocation area,

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in anticipation of storing leachate that may accumulate in the waste relocation area. During the afternoon, Oakes & Son continued cover removal in the waste reconsolidation area, and began removing waste from the waste relocation area and transporting it to the waste reconsolidation area.

All work appeared to be in accordance with the U.S. EPA approved design.

8 September 2000

Oakes & Son excavated waste along the north boundary of the waste relocation area throughout the day and transported it to the waste relocation area. Also, Oakes removed additional cover material from the waste reconsolidation area. Cover material was transported from the borrow area to the stockpile near the waste reconsolidation area. The RMT site manager collected select soil samples from the areas in the waste relocation area where waste had been removed, and screened the sample with a photoionization detector (PID).

RMT reported to Joe Corns of EDI that daily reports and quality control reports were being generated on a daily basis, and would be available when electrical power and a computer were set up in the on-site engineer's trailer.

All work appeared to be in accordance with the U.S. EPA approved design.

11 September 2000

Oakes transported waste from the waste relocation area to the waste reconsolidation area until approximately 1:30 p.m., when torrential rains hindered further efforts. During the waste relocation process, leachate that accumulated in the waste excavation was pumped with a trash pump to the 20,000-gallon trailer tank. During the same time period, Oakes also scraped cover material from the borrow area and stockpiled it. Again, this effort was halted at the onset of heavy rain.

Work completed by Terra on this day included scraping of vegetative from areas where piping will be installed, and fusion welding of plastic pipe. Terra also dragged sections of pipe into position with a front-end loader.

All work appeared to be in accordance with the U.S. EPA approved design.

12 September 2000

Oakes performed only surveying work. No waste was relocated, and no cover material from the borrow area was excavated due to wet conditions. Terra completed further pipe positioning. Joe Corns left the site at 8:30 a.m.

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13 September 2000

Oakes performed only elevation surveying because of wet conditions. Terra installed a condensate sump at the southwest area of the landfill. Waste excavated during the installation was loaded in a dump truck and transported to the waste reconsolidation area. At 10:00 a.m., a progress meeting was held in the engineering trailer. The meeting was attended by Mr. Ron Murawski of the U.S. EPA, Mr. Om Patel of Roy F. Weston, Mr. Joe Corns of Environmental Design International, Mr. Bob Endres of RMT, and Mr. Joel Schittone of RMT. Mr. Larry Buechel of Waste Management participated in the meeting via telephone. Meeting minutes from this meeting were forwarded via e-mail to all participants by Mr. Bob Endres. Following the meeting, Mr. Murawski, Mr. Corns, and Mr. Patel conducted a walking tour of the landfill and noted the work progress. Following lunch, Mr. Patel performed a safety audit. Terra continued working with piping throughout the day.

All work appeared to be in accordance with the U.S. EPA approved design.

18 September 2000

Oakes set up the trash pump in the excavation formed in the waste relocation area, and pumped standing leachate into the 20,000-gallon trailer tank. A 5,500-gallon tanker truck then arrived and pumped leachate out of the trailer tank and transported it to a treatment plant. The tanker truck was operated by Onyx Environmental Services. Oakes then began excavating and hauling waste from the waste relocation area to the waste reconsolidation area, and continued the process throughout the day.

Terra Engineering dug a trench adjacent to the north of Condensate Sump-1 and heat fused a section of 8" pipe to the sump. During the excavation of the trench, waste removed was immediately loaded into dump trucks and transported to the waste reconsolidation area. During the placement of the pipe, a Terra employee was walking in liquid that had entered the trench wearing only leather boots and pants (no protective clothing). The incident was called to the attention of the subject worker, Bob Endres of RMT, and Om Patel of Roy F. Weston. During the pipe placement process, Terra employees monitored the excavation with a photoionization detector (PID), and a combination oxygen, hydrogen sulfide and carbon monoxide monitor.

Also, throughout the course of the day, Oakes removed topsoil cover from the area west of the waste reconsolidation area, and placed low permeability fill in the area.

A second 20,000-gallon trailer tank was delivered at approximately noon on this day, and leachate was pumped into it. The 5,500 gallon tanker truck made two more pickups of leachate during the course of the day.

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At the end of the day, Joe Corns of Environmental Design International, inc. (EDI) reviewed all of RMT's daily reports to date and found them to be representative of the actual activities conducted at the site.

All work appeared to be in accordance with the U.S. EPA approved design, with the exception of Terra employee working in leachate filled area without donning appropriate PPE.

19 September 2000

Oakes removed cover topsoil from the area west of the waste reconsolidation area, stockpiled it, and placed low permeability fill in the area. Later in the day, Oakes resumed removing waste from the waste relocation area, and placing it in the waste reconsolidation area.

The tanker truck returned twice during the day and removed liquids from the trailer tanks.

Terra Engineering continued trenching north from CS-1, to the vicinities of GW-27 and GW-30. Waste from the trench excavation was placed immediately in dump trucks and hauled to the waste reconsolidation area. After the 8" piping and 2" piping was placed in the trench and run to the vicinity of GW-27 and GW-30, sand was placed on top of the piping, and finally waste was replaced to backfill the trench. The trench bottom had been lined with gravel.

All work appeared to be in accordance with the U.S. EPA approved design.

20 September 2000

Steady rain fell throughout the day. Two tanker trucks arrived on-site and removed liquids from the 20,000-gallon trailer tanks. At 10:00 a. m. the weekly status meeting was held on-site. Present at the meeting were Jim Crowley and Bob Endres of RMT, Larry Buechel of Waste Management, Om Patel of Roy F. Weston, Ron Murawski of the United States Environmental Protection Agency (U.S. EPA), and Joe Corns of EDI. Topics discussed included site safety, the newly designated hospital (Aurora Medical Center in Kenosha, Wisconsin), digging additional test pits in the area east of the presently defined waste relocation area, slope of the piping trench walls during construction, modified drawings showing the new location for CS-2, and covering the waste at the end of each day in the waste relocation area. Meeting minutes were prepared and distributed by RMT. The participants of the meeting then toured the waste relocation area. No other work was performed on this day due to wet conditions.

All work appeared to be in accordance with the U.S. EPA approved design.

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22 September 2000

Oakes removed trash from the waste relocation area and deposited it in the waste reconsolidation area. Terra Engineering excavated a trench at the location of CS-2 and installed CS-2. The excavated trash was loaded into dumptrucks and immediately hauled to the waste reconsolidation area. Work was continued until approximately 11:30 a. m., when rain forced work stoppage. At 8:30 a.m., Joe Corns of EDI participated in a conference call with Om Patel, Larry Buechel, and Ron Murawski concerning placement of cover over the vertical wall face in the western section of the waste relocation area. RMT had indicated to Joe Corns that they planned not to cover the area. During the conference call, it was determined that the area should be covered. Later that morning, Bob Endres of RMT purchased plastic sheeting, and with the help of Oakes personnel, covered the vertical face.

Due to weather conditions, no significant activity was completed on this day

All work appeared to be in accordance with the U.S. EPA approved design.

26 September 2000

Joe Corns of EDI arrived at the site at approximately 7:00 a.m., and found that the waste relocation excavation was completely filled with water. Bob Endres of RMT informed Joe Corns that he estimated that 1,000,000 gallons were contained in the excavation. RMT had instructed Oakes to pump the water into a manhole on the landfill that drained into the landfill. Joe Corns notified Om Patel of Roy F. Weston of the conditions. Om Patel immediately initiated a conference call with the U.S. EPA WAM to inform him of the problem.

Terra Engineering excavated a trench and installed piping to the north from CS-1. Trash excavated was loaded into dump-trucks and hauled to the waste reconsolidation area. As the pipe was laid, the trench bottom was lined with sand, and the slope of the pipe was maintained at a constant 2% or greater grade sloping back toward CS-1. The piping was then covered with sand, and the trench was backfilled with trash and soil previously excavated. During excavating and pipe installation, the atmosphere in the trench was monitored for volatiles with a photoionization detector (PID), and carbon monoxide, oxygen levels and hydrogen sulfide with a combo meter. No elevated levels of these constituents were detected.

Oakes spent most of the day clearing mud from roadways, building a berm north of the waste relocation area, and pumping water from the excavation into the 20,000 gallon tanks. No waste relocation was conducted on this day.

The pumping of the water from the waste relocation area into the landfill was not an acceptable method. All other work appeared to be in accordance with the U.S. EPA approved design.

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27 September 2000

Terra Engineering dug trench and laid pipe in a lateral toward GW-17. Waste excavated during trenching was placed in dump-trucks and hauled to the waste reconsolidation area. Atmospheric monitoring was conducted as described above. After piping was laid to GW-17, Terra continued trenching and laying pipe north of the connection of the lateral with the main piping run.

Oakes constructed a small dam in the waste relocation area and pumped water from the east side to the west side of the dam. The two 20,000 gallon tanks were filled previously. Oakes worked to grade, cut and fill the area west of the waste reconsolidation area. Oakes also excavated cover and fill from the eastern section of the waste reconsolidation area and used it to fill the area east of the reconsolidation area.

Water continued to be a problem in the waste relocation area, and Oakes constructed a second dam east of the first, and pumped liquids from east of the dam to the reservoir formed between the first and second dam. RMT determined that the major reservoir of water, inclusive of approximately 1,000,000 gallons, should remain segregated from the introduction of new leachate into the excavation. At approximately 1:00 p. m., Oakes resumed excavating and hauling waste from the waste relocation area. The point of excavation was east of the main reservoir of water, leaving a large plug of clay and waste between the main reservoir and the work zone. Waste relocation then continued until the end of the day. Low permeable fill was placed over the waste relocation and reconsolidation areas at the end of the day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

28 September 2000

Terra engineering worked to install the piping lateral to LP-3, GW-16, LP-4 and GW-18. Procedures were as described above.

Oakes worked to remove topsoil cover in the area north of the second waste reconsolidation area, and scraped and graded the access road to the borrow area. Oakes also worked to expand the second waste reconsolidation area beyond its original eastern boundary. No waste relocation was performed on this day.

On this day, a progress meeting was held and attended by Om Patel of Weston, Ron Murawski of the U.S. EPA, Jim Crowley, Mark Torrezani, Jim Tinjim and Steve Wittman of RMT, and Mike Peterson of Waste Management. The main focus of the meeting was the 1,000,000 gallons of water held in the reservoir.

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Meeting minutes are to be supplied by RMT. It was also determined that RMT should secure the services of additional tanker trucks to help control the water problem.

Late in the day, a third 20,000 gallon trailer tank was delivered to the site.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

29 September 2000

Oakes graded the new west side access road, placed geotextile fabric over it, and then laid gravel over it. Oakes pumped leachate from the waste relocation area to the new 20,000 gallon tank. Oakes also hauled waste from the relocation area, and scraped and graded soil in the area north of the second waste reconsolidation area. These activities continued throughout the day.

Terra Engineering was not present on the site this day.

An incomplete set of sample bottles was delivered to RMT for sampling the reservoir of water. The remaining bottles will be delivered on 2 October 2000. It was determined by the U.S. EPA that all parameters called for in the NPDES permitting requirements should be analyzed for.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

2 October 2000

Oakes filled and graded the area north of the southwest waste reconsolidation area, pumped liquids from the waste relocation area into 20,000 gallon tanks, and relocated waste. Terra Engineering was not on-site this day. RMT collected surface water samples from Sequoit Creek and the waste relocation area main pond. The pond samples were collected from the southwest corner, the southeast corner, and the north center. The samples were packaged with ice, and sent via overnight delivery to RMT's EPA approved laboratory. Four tanker truck loads of water were removed from the site on this day. Oakes managed water in the waste excavation by pumping it to the holding tanks, and by forming cells with clay dams and pumping to adjacent cells.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

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3 October 2000

Terra Engineering installed 4" and 2" lateral piping in the area of GW-16. Oakes removed clay fill from the eastern section of the eastern waste reconsolidation area and stockpiled. Oakes also relocated waste from the waste relocation area to the eastern waste reconsolidation area. The weekly progress meeting was held on this day and was attended by Om Patel of Weston, Ron Murawski of the U.S. EPA, Larry Buechel of Waste Management, and Joe Corns of EDI. Meeting minutes are to be supplied by RMT. Oakes continued relocating waste throughout the day, and Terra continued installing the main piping toward CS-2. One tanker truck took two loads of liquid on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

4 October 2000

On the evening of October 3, at least 1" of rain fell at the landfill. Terra and Oakes did not complete any construction work on October 4 because of wet and muddy conditions. One tanker truck removed two loads of liquids on this day.

5 October 2000

Terra Engineering completed the installation of piping to the northwest corner of the landfill and then began to work east across the north side of the landfill. Oakes removed topsoil from the northwest section of the landfill, and excavated fill from the eastern section of the eastern waste reconsolidation area to provide additional space for waste. Oakes also placed fill in the northwest section of the landfill to bring the surface to the required grade. One tanker truck removed two loads of liquid on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

6 October 2000

Rain the previous evening caused wet and muddy conditions, and Oakes and Terra did not work on this day. RMT collected additional water samples for analysis for BOD, chromium, pH, and sulfite. The sample and the duplicate sample collected from the pond were composited from the previous three locations at the southeast corner, southwest corner, and the north center. Two tanker trucks removed two loads each on this day.

Joe Corns reviewed the project daily reports to this date and found them to be in agreement with the observations made during the oversight.

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All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

9 October 2000

Terra Engineering continued installing piping along the north side of the landfill and proceeded east. Terra also installed surface connection piping at MHE and MHW. Oakes removed clay fill from the eastern waste reconsolidation area, and utilized it to build a dam at the toe of the waste relocation work area. Oakes then began relocating waste. Oakes also worked to expand the eastern waste reconsolidation area, starting in the early afternoon. Fill taken from the reconsolidation area was used to expand a dam in the relocation area. Four tanker trucks removed two loads of liquid each on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

10 October 2000

Oakes relocated waste, and placed fill at the northwest side of the landfill. Oakes also worked to install the roadway in the northwest section of the landfill. Terra worked to install the north-south lateral to GWF-2, GWF-8 and GW-24. Waste encountered in the trench was loaded into a dump-truck and hauled to the reconsolidation area. RMT's fence contractor installed fencing on the east side of the landfill. Four tanker trucks removed two loads each of liquids, from both the water relocation area and the holding tanks. During the afternoon, site conditions dried, and the construction vehicles began stirring up large amounts of dust. Om Patel was informed of this condition. U.S. EPA was also informed about this condition. Oakes, near the end of the day, opened an excavation east of the known water relocation area, in a mound in the north-central wooded area. Only black soil and few trash fragments were encountered in the excavation.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

11 October 2000

Oakes expanded the eastern waste relocation area, and filled and graded in the northwest section of the landfill. Terra continued installing the lateral piping near the south end of the landfill. The weekly progress meeting was held on this day, and was attended by Om Patel of Weston, Bob Endres and Mark Terrazani of RMT, Larry Buechel of Waste Management, and Joe Corns of EDI . Ron Murawski of the U.S. EPA participated via telephone. RMT will provide the meeting minutes. Four tanker trucks removed four loads of liquid each from the holding tanks and the waste excavation. Dust at the site continued to be a problem. WESTON informed EPA regarding the dust issue.

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All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA, with the exception of the dust emissions.

12 October 2000

Terra continued installing piping to the east along the northern side of the landfill, and installed three valves in the piping at the tee to the north-south lateral across the fill. Oakes moved topsoil from the stockpile to the northwest side of the landfill. Oakes also moved debris from the south central section of the landfill to the waste reconsolidation area, and relocated waste. Oakes reached the eastern extent of the waste in the relocation area. RMT screened soil samples from the north wall and the eastern section floor of the waste relocation area, then collected soil samples for laboratory analysis from the same locations. The exact locations, as previously determined by RMT, were in accordance with RMT's Quality Assurance Plan and the request of the U.S. EPA for sample collection along the north wall. All locations were surveyed and mapped by RMT. Four tanker trucks removed two loads of liquid each from the holding tanks and the waste excavation. Dust continued to be a problem throughout the day. WESTON informed U.S. EPA regarding dust issue.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA, with the exception of the dust emissions.

13 October 2000

Oakes constructed a dam along the eastern side of the waste plug remaining to the east of the main water pond. Oakes also scraped and stockpiled topsoil in the borrow area, and worked to layout and construct the access road to the borrow area. Terra installed well casings, stone, sand and bentonite in the two manholes (MHE and MHW) to convert them to leachate/gas collection wells. Dust continued to be a problem throughout the day. Four tanker trucks removed two loads of liquid each from the holding tanks and the waste relocation area. Dust continued to be a problem throughout the day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA, with the exception of the dust emissions.

16 October 2000

Oakes excavated waste from the waste relocation area and placed it in the waste reconsolidation area. Oakes also obtained clay soil from the borrow area and placed and graded it in the west section of the landfill. Late in the day, Oakes excavated fill from the waste reconsolidation area to expand the area, and placed it in the waste relocation area to strengthen a berm holding back liquids between sections of the excavation. Lastly, Oakes managed the removal of surface water and leachate from the waste excavation. Oakes pumped liquid from the excavation to the three 20,000 gallon tanks, and assisted tanker

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trucks in obtaining loads from the tanks and the excavation. A total of six tanker truck loads were removed on this day.

Terra Engineering worked to install the lateral piping to GWF-4, LP-8, and GW-20. During trenching, waste encountered was loaded into dump-trucks and hauled to the waste reconsolidation area. The atmosphere in the trench was monitored for volatile organic vapors with a photoionization detector (PID), and for oxygen levels, hydrogen sulfide, and carbon monoxide with a multimeter. Terra also installed a three valve set at the intersection of the lateral with the main pipes.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA.

17 October 2000

Oakes placed soil from the borrow area on the west side of the remaining plug of waste in the waste relocation area in order to create a berm to separate the waste from the large pond of water. Oakes also smashed four large metal containers that were present on the south side of the landfill and placed them in the waste reconsolidation area. Later in the day, after the berm in the waste trench was completed, Oakes moved waste from the relocation area to the reconsolidation area. Oakes also filled and graded the west section of the landfill. Lastly, Oakes managed liquid removal from the excavation. A total of six tanker loads of water and leachate were removed on this day.

Terra Engineering installed piping north of the tees to the previous lateral, and then installed Condensate Sump-3 (CS-3). Waste excavated during the process was loaded into dump-trucks and placed in the reconsolidation area. After CS-3 was installed, Terra continued installing piping to the east of CS-3.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA, with the exception of dusty conditions in the afternoon.

18 October 2000

Oakes continued relocating waste. Oakes also placed soil from the borrow area over the west section of the landfill and graded. Later in the day, Oakes removed clay fill from the waste reconsolidation area in order to create additional space for waste. The fill was stockpiled for later use. Oakes also managed the liquids removal. A total of fifteen loads of liquids were removed on this day.

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Terra installed the lateral piping to GWF-3, then to GW-19 and GW-25. Later in the day, Terra returned to the location of CS-1, and began installing piping along the southern section of the landfill to the east. All procedures were as described above.

RMT collected four confirmational samples from the bottom and sidewall of the waste excavation. Exact surveyed locations were documented by RMT.

Capable Concrete was on site this day to lay out forms for the loadout pad at the underground storage tank location.

Dust kicked up by vehicles was a problem on this day. RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA, with the exception of dusty conditions in the afternoon.

19 October 2000

Oakes filled and graded in the eastern section of the landfill. Oakes also excavated clay fill to expand the waste reconsolidation area. Later in the day, Oakes completed the removal of the major quantity of waste from the relocation area, leaving only residual waste on the sidewalls and under the eastern berm. Oakes also managed removal of liquids from the site. A total of ten tanker trucks of liquids were removed on this day.

Terra excavated in the area of CS-1 to install a tee and a gas load out pipe. Liquids from the excavation were pumped to the old tanker truck trailer previously moved to that location. Terra experienced an equipment breakdown later in the morning and did not work after noon.

The weekly progress meeting was held on this day and was attended by Bob Endres and Jim Crowley of RMT, Larry Buechel and Jack Dowden of Waste Management, Om Patel of Roy F. Weston, Ron Murawski of U.S. EPA, and Joe Corns of EDI. Meeting minutes were distributed by RMT.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and modifications approved by the U.S. EPA, with the exception of dusty conditions.

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20 October 2000

Oakes placed backfill in the eastern quarter of the waste relocation area. The fill was obtained from the borrow area. Oakes also filled and graded in the western section of the landfill. Oakes' dust control water truck was delivered in the morning. Ron Murakski of the U.S. EPA approved use of water from Sequoit Creek for dust control.

Terra excavated near CS-1 and installed a tee on CS-1 and the gas load out pipe to the west of CS-1. Terra then installed piping to the east from the tee. Liquids were pumped to the old tanker trailer and a 20,000 gallon trailer tank which had been moved to the area. Atmosphere monitoring in the trenches was performed as previously described.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA.

23 October 2000

Oakes placed clay material obtained from the borrow area over the waste reconsolidation area and compacted it. Oakes also filled and graded soil on the west section of the landfill. No tanker trucks picked up fluids on this day because of a problem at the waste water treatment plant.

Terra installed piping in the area east of CS-1. Waste removed from the trench was trucked to the waste reconsolidation area. Fluids from the trench were pumped to the 20,000 gallon trailer tank. The atmosphere in the trench was monitored with a photoionization detector and a multimeter for volatile organic vapors, hydrogen sulfide, oxygen levels, and carbon monoxide.

RMT performed three density tests on the clay cap over the waste reconsolidation area. All tests indicated density greater than 90% of the laboratory value for the material.

Late in the day, Oakes dug two test pits in the wooded area east of the waste relocation area. The pits were dug to a depth of ten feet. Only black peaty soil and sandy clay were encountered in the pits. No waste was encountered in the pits.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and modifications approved by the U.S. EPA, with the exception of dusty conditions in the afternoon.

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24 October 2000

Oakes excavated fill from the waste reconsolidation area to expand space for waste deposition. Oakes did not perform any other work this day due to wet conditions from the previous night's rain. Oakes also managed liquids disposal. Six truckloads of liquids were removed from the site on this day.

Terra continued trenching and installing pipe east of CS-1. Liquids disposal, waste disposal, and atmospheric monitoring were conducted as described above.

The weekly progress meeting was held on this day. The meeting was attended by Jim Tinjim and Jim Crowley of RMT, Larry Buechel of Waste Management, Ron Murawski of the U.S. EPA, and Joe Corns of EDI. The meeting minutes were prepared and distributed by RMT.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA.

25 October 2000

Oakes placed clay from the borrow area over the waste reconsolidation area and compacted it. Oakes also filled and graded in the west section of the landfill. Lastly, Oakes managed liquids removal from the site. Six truckloads of liquids were removed from the site on this day.

Terra worked to install the piping lateral to GWF-4, LP-8, and GW-20. Waste encountered was loaded into dump-trucks and placed in a different section of the waste reconsolidation area. Atmospheric monitoring was conducted as described above.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA.

26 October 2000

Oakes continued to place clay from the borrow area over the waste reconsolidation area. Oakes also filled and graded in the west section of the landfill. In addition, Oakes completed pumping water from the small pond in the waste relocation area, and bulldozed the base of the pond. Four tanker truck loads of liquid were removed from the 20,000 gallon tanks on this day.

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Terra returned to the northeast corner of the landfill and continued installing piping to the east and then to the south. Waste and atmospheric monitoring were handled as described above.

RMT collected one confirmation soil sample from the bottom of the recently drained section of the waste relocation area, and seven background soil samples from the bottom of the adjacent wetlands, and one background soil sample from the bank of Sequoit Creek. The background soil samples will be analyzed for the four metals listed in the quality assurance document, per the request of the U.S. EPA.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work performed on this day was completed in accordance with the U.S. EPA approved design documents, and the approval of modifications by the U.S. EPA.

Joe Corns of EDI reviewed RMT's daily reports and found them to be in agreement with EDI's notes and observations.

30 October 2000

Oakes placed cover over the main waste reconsolidation area, excavated fill from the second waste reconsolidation area, and placed topsoil on the western section of the landfill.

Terra piped and trenched on the east side of the landfill through GW-21 and past GW-22 to the southeast section of the landfill. Waste encountered in the trench was trucked to the second waste reconsolidation area. Atmospheric monitoring in the trench was conducted as previously described.

RMT conducted four neutron density tests of the waste reconsolidation cover. All tests met the required criteria of minimum 90% compaction.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

31 October 2000

Oakes placed topsoil over the western section of the landfill, excavated fill from the second waste reconsolidation area, placed fill from the waste reconsolidation area and the borrow area in the waste relocation excavation, and operated the dust control water truck.

Terra trenched and piped to the west along the south side of the landfill, and installed valves at the lateral to GW-20. During trenching, leachate and gas were encountered in the excavation and Terra moved two 20,000 gallon trailer tanks to locations along the trench and

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pumped leachate to the tanks. Terra also began excavating in anticipation of installing CS-4. Waste excavated from the trench was placed in the second reconsolidation area.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

1 November 2000

Oakes placed fill from the borrow area in the waste relocation excavation, placed topsoil over the western section of the landfill, and placed topsoil over the main waste reconsolidation area. Oakes also began removing and stockpiling topsoil from the central section of the western half of the landfill in anticipation of filling and grading.

Terra installed CS-4 in the excavation, and installed piping and tee's to CS-4 and to the lateral servicing GW-25.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

2 November 2000

Oakes did not work because of heavy rain the previous night and wet conditions.

Terra prepared fittings and valves for the well headers.

The weekly progress meeting was held on this day, and was attended by Larry Buechel of Waste Management, Bob Endres of RMT, Om Patel of Roy F. Weston, Ron Murawski of U.S. EPA, and Joe Corns of EDI. Other RMT staff and Greg Ratliffe of the Illinois EPA participated via telephone. Meeting minutes are to be distributed by RMT.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

3 November 2000

Joe Corns of EDI observed RMT collecting two bottom samples and one sidewall sample from the water filled western section of the waste relocation excavation. The samples were collected from the excavation with a backhoe, and portions were containerized for shipment to RMT's laboratory.

Oakes continued to backfill, fill and cover. Terra continued trenching and piping.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

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6 November 2000

RMT and Oakes set up two gasoline engine powered pumps, and two electric powered pumps at the west section of the waste relocation area. The discharge lines from the pumps were inserted into a 20' x 10' geotextile sock which was placed near the bank of Sequoit Creek. The water was then discharged from the pumps through the sock. The water exited the sock as sheet flow and flowed into Sequoit Creek. The pumping continued throughout the day. Oakes also backfilled and graded the eastern section of the waste relocation area.

Terra Engineering trenched and installed piping in the vicinity of GW-28.

Two tanker trucks arrived at the site on this day and removed liquids from the 20,000 gallon trailer tanks positioned near Condensate Sump 4.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

7 November 2000

RMT and Oakes completed pumping water from the waste relocation excavation. Oakes and Terra worked together and dug the excavation for the 30,000 gallon leachate underground storage tank. Waste removed from the excavation was trucked to the second waste reconsolidation area. By 2:00 p. m. the water in the waste relocation excavation was 98% drained to Sequoit Creek.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

8 November 2000

Terra placed gravel in the bottom of the UST excavation, graded the gravel to the required elevation, and constructed the forms for the dead man anchors. Concrete was also poured into the forms.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

9 November 2000

No work was conducted by Oakes or Terra due to rain. The progress meeting was held, and attended by Ron Murawski of the U.S. EPA, Larry Buechel of Waste Management, Joe Corns of EDI, and Bob Endres and Mark Torrezani of RMT. RMT furnished meeting minutes.

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15 November 2000

Terra tested the piping systems with compressed air. The pump air supply piping and the leachate force main were each pressurized to 125 psi and allowed to set for 30 minutes. A gage on each line was used to observe the air pressure. The gas main was pressurized to 5 psi and allowed to set for 30 minutes. Again a gage was used to observe the air pressure. All three piping systems held the air pressure for the complete 30 minute test period.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

17 November 2000

Oakes positioned a bulldozer in the west end of the waste relocation excavation, and scraped and pushed all the remaining waste to the west end. Oakes then excavated clay fill from the borrow area and filled the excavation up to the location of the waste.

Terra excavated trenches around wells and installed well heads and vaults.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

18 November 2000

Oakes excavated the remaining waste in the waste relocation trench and deposited it in the second waste reconsolidation area. Oakes then continued backfilling the excavation with clay from the borrow area.

RMT conducted dust monitoring at down-wind locations near trenching operations.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

20 November 2000

Oakes excavated clay from the borrow area and placed cover over the second waste reconsolidation area. Oakes placed the cover in one foot lifts and compacted it, and RMT conducted two neutron density tests on each lift following compaction.

Terra installed well heads and vaults on leachate/gas wells, and placed valve stem risers on previously installed valves in the piping system.

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The 30,000 gallon underground storage tank was delivered on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

21 November 2000

Terra installed well heads and vaults until the crane arrived and was set up. Terra then assisted the crane operator crew in placing the underground storage tank in the excavation.

Oakes excavated clay fill from the borrow area, and filled the area south of the second waste reconsolidation area.

The weekly progress meeting was held on this day, and was attended by Larry Buechel of Waste Management, Bob Endres, Jim Tinjim and Joel Scetoni of RMT, Ron Murawski of U.S. EPA, Om Patel of Roy F. Weston, and Joe Corns of EDI. RMT distributed minutes of the meeting.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

22 November 2000

Oakes dug out cover material and waste at four locations on the south side of the landfill where leachate seeps had occurred. The excavations were then filled with clay from the borrow area, and the clay was compacted.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

27 November 2000

The UST excavation was backfilled with sand. Terra also installed well heads and vaults on leachate/gas wells.

Oakes did not work on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

28 November 2000

Terra installed the tank manway, the vent pipe, the monitor port, and the interstitial riser, and dug a trench for the leachate forcemain.

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Terra also installed well heads and vaults on leachate/gas wells.

Oakes did not work on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

29 November 2000

Terra installed piping to the underground storage tank for the leachate force main, the pump out and the load out, and the sewer connection. Terra then covered the top of the piping with pea gravel, and placed foam insulation over the piping. Sand was then used to cover the entire assembly.

Oakes did not work on this day.

All work appeared to be in accordance with the U.S. EPA approved design and approved modifications by the U.S. EPA.

5 December 2000

Oakes used scraper machines to obtain clay from the borrow area and transport it to the leachate underground storage tank area. Terra then used a bulldozer to place the clay in one foot lifts over the tank area. Terra then used a roller/compactor to compact the clay after each lift.

RMT performed a neutron density test on each lift, and obtained a Shelby tube sample from the second lift for laboratory testing.

On this day, Terra also installed four well heads and vaults on leachate/gas collection wells.

RMT did not comply with the design documents and the request of the U.S. EPA because only one geotechnical sample was collected from the clay cap placed over the UST.

6 December 2000

Terra installed valve stem extensions on valve previously installed in the piping system.

Oakes placed clay fill at locations in the southwest section of the landfill.

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Joe Corns of EDI reviewed the daily reports and determined that a total of ten geotechnical samples had been collected from the cover placed over the two waste reconsolidation areas. This total is in conformance with the design requirement of one sample per one foot lift per acre.

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PHOTO-DOCUMENTATION

11 September 2000 — Excavating waste at relocation area

11 September 2000 — Loading dump truck with waste

11 September 2000— Pumping leachate/groundwater from waste excavation area

12 September 2000 — Excavating in area of CS-1

18 September 2000 — Trenching north of CS-1

18 September 2000 — Pumping liquids from waste excavation

18 September 2000 —Tanker removing liquid from storage tank

18 September 2000 — Installing pipe to the north of CS-1

18 September 2000 — Western section of east half of landfill after removal of topsoil

18 September 2000 — Removing topsoil from area west of waste relocation area

18 September 2000 — View of the borrow area looking north

19 September 2000 — View of waste reconsolidation area looking west

19 September 2000 — Grading landfill cover west of reconsolidation area

19 September 2000 — Transporting soil from borrow area for cover

22 September 2000 — Excavation at CS-2 area

22 September 2000 — Installing CS-2

22 September 2000 — Installing pipe north of CS-2

22 September 2000 — Stripping topsoil from western portion of the east half of landfill

26 September 2000 — Installing pipes near LP-10

26 September 2000 — Digging trench near LP-10

27 September 2000 — Installing pipes along west side of landfill

27 September 2000 — Trenching lateral to LP-3

27 September 2000 — Installing T-connections to laterals

27 September 2000 — Backfilling and compacting trench

27 September 2000 — Excavating trench on west side of landfill

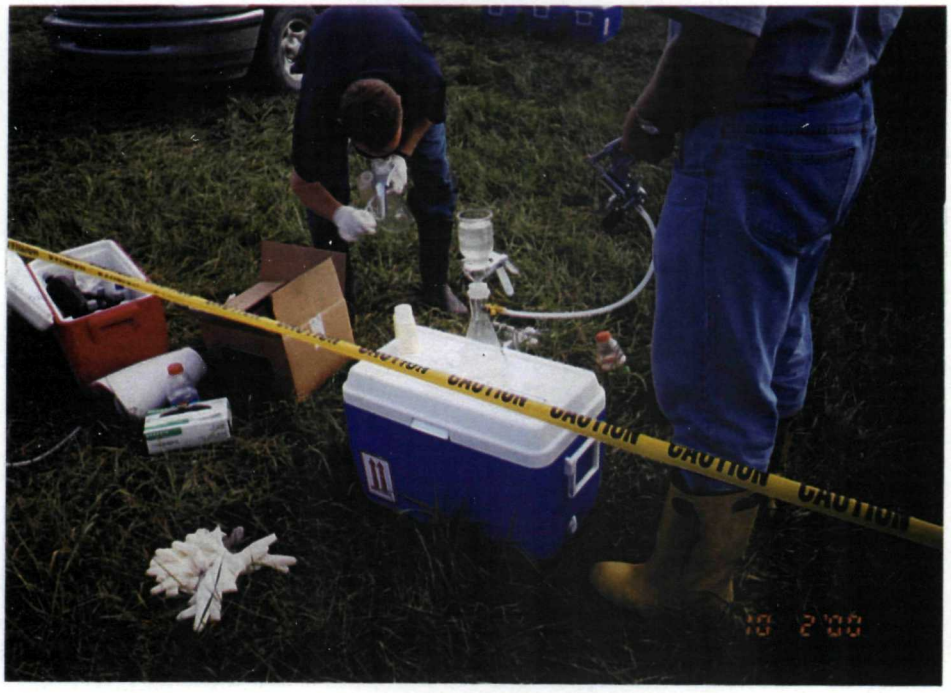
28 September 2000 — Trenching and piping near GW-18

28 September 2000 — Backfilled piping trench in vicinity of GW-16 & GW-18

28 September 2000 — Section of landfill west of waste reconsolidation area after being graded

2 October 2000 — Collecting sample from creek

2 October 2000 — Collecting sample from waste excavation



2 October 2000 — Filtering samples

2 October 2000 — Samples packed in coolers

3 October 2000 — Trenching in area of GW-16

3 October 2000 — Installing pipes at GW-16

5 October 2000 — Trenching in pipe along north side of landfill

5 October 2000 — Cover over CS-2 looking east

6 October 2000 — Collecting water sample from waste excavation

6 October 2000 — Water in waste excavation looking north

9 October 2000 — Excavating fill from reconsolidation area

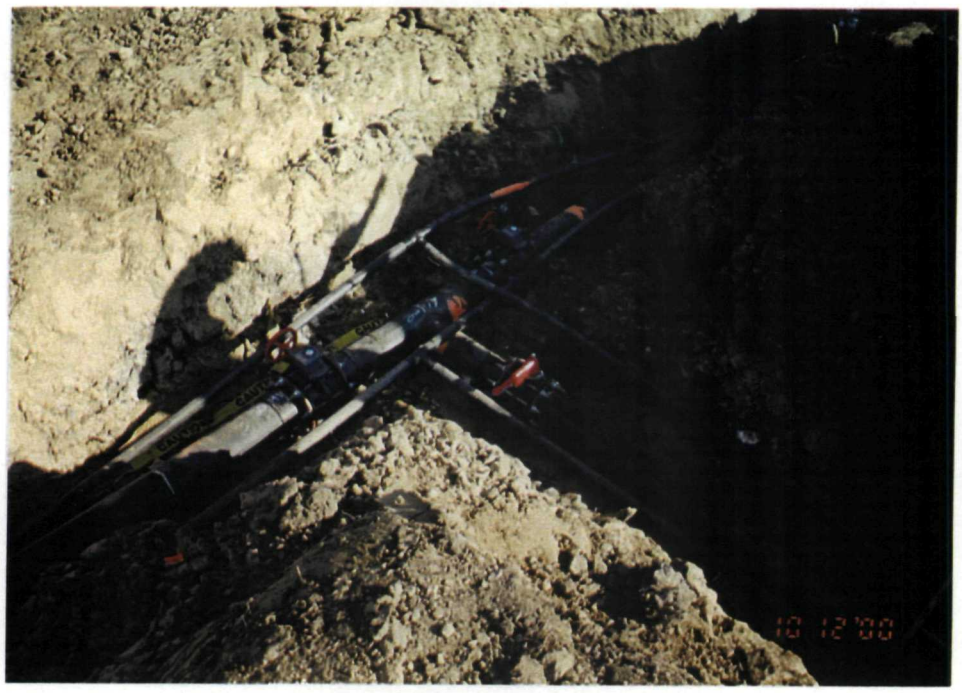
9 October 2000— Placing granular fill to trench

10 October 2000 — Berm constructed in waste relocation area

10 October 2000 — Trenching in lateral pipe to GWF-2, GWF-8, and GWF-24

11 October 2000 — Test pile north of center of landfill in wooded area

11 October 2000 — Laying in pipe near south side of landfill



12 October 2000 — Installing tees and valves at lateral to GWF-2

12 October 2000 — Hauling refuse from south side of landfill

12 October 2000 — Collecting confirmation soil sample

12 October 2000 — Installing pipe at manhole locations

13 October 2000 — Placing sump for leachate loading pad

13 October 2000 — Installing well pipe at former manhole

16 October 2000 — Eastern section of waste relocation excavation

16 October 2000 — Preparing valves for installation on north side of landfill

17 October 2000 — Trenching for piping and installation of CS-3

17 October 2000 — Installing CS-3

17 October 2000 — Fusing gas main to CS-3

18 October 2000 — Piping in lateral across landfill to GWF-3

19 October 2000 — Concrete truck pouring leachate load out pad

20 October 2000 — Backfilling east end of waste relocation excavation

20 October 2000 — Compacting fill in waste relocation area

23 October 2000 — Grading and filling in eastern section of landfill over waste reconsolidation area

23 October 2000 — Conducting density test on reconsolidation area cover

26 October 2000 — Trenching near GW-20

26 October 2000 — Piping across southern roadway near GW-20

26 October 2000 — Collecting background soil sample

27 October 2000 — Excavating cover soil from borrow area

30 October 2000 — Waste reconsolidation area after being covered

30 October 2000 — Collecting Shelby tube sample

30 October 2000 — Placing topsoil on western section of landfill

31 October 2000 — Water truck in operation

31 October 2000 — Leachate and pump in pipe trench near CS-4

3 November 2000 — Collecting soil sample from bottom of pond

6 November 2000 — Discharging pond water through geotextile sock

6 November 2000 — Pump removing water from pond

7 November 2000 — Excavating for UST

15 November 2000 — Conducting air tests on piping

17 November 2000 — Installing typical well head

20 November 2000 — Placing vault over well head

21 November 2000 — Placing UST in excavation

22 November 2000 — Leachate seep on south side of landfill

22 November 2000 — Excavating at leachate seep

22 November 2000 — Placing clay fill into leachate seep excavation

22 November 2000 — Placing bentonite around CS-4

COPIES FROM THE LOG BOOK

Projects (continued)

Best Western Antioch

847- 395-3606

Om Patel

Patel0@mail.RFweston.com

8/29/2000

1100 arrive HOD landfill

- crews surveying locations for wells etc
- crews welding 6" plastic
- piping for headers
- trucks dumping loads of stone

1150 Kirk Solberg from RMT

1210 signed sign in sheet

weather: 80°, overcast, humid

8/29/2000

grader arrived on lowbay

survey work completed

includes 100 ft grid

with elevations, leachate/gas

well locations

condensate sump locations

crew is cutting piping -

will be welded into 300'

sections

1:00 meet with Kirk -

rep from Oakes Excavating

discussed borrow

at northeast side of

fill and waste

that needs to be

relocated

silt fence was installed

around perimeter of

fill prior to Joe Corns

arrival

3:00 Oakes reps working

stakes to show final

grade elevations

level of paint is final grade

8/30/2000

0720 arrive site

Oakes employees on-site — welding plastic pipe into 300 ft sections

- drill rig on site - crew setting up

0740 Oakes takes bulldozer to eastern waste reconsolidation area to strip cover

contractors on site: Oakes & Son - surveying/bulldozing

Terra Engineering - drilling - pipe assembly

8/30/2000

Oakes stripping soil in waste reconsolidation area with stripper & bulldozer

Top soil is being dropped on north side of landfill

0800 Safety director for Terra Engineering arrives at site - will perform FIT testing on Terra drillers

Drill rig being setup at location GW-2.7

8/30/2000

840 Dakos putting in culvert and road to borrow area delinating future extent of waste reconsolidation area, stripping recon area and adjacent area - adjacent area stripped to stockpile clay removed from recon area

845-915 - safety manager for Terra & Kirk Salberg hold safety meeting for Terra &

8/30/2000

915 Terra continues to roof weld piping into 300' Beckons

Weather: 68°, overca. misting

0920 truck bringing second scraper arrive

0930 RMT holds safety mee for Terra engineering

8/30/2000

840 Dakes putting in culvert and road to borrow area delinating future extent of waste reconsolidation area, stripping recon area and adjacent area - adjacent area stripped to stockpile clay removed from recon area.

845-915 - safety manager for Terra & Kirk Solberg hold safety meeting for Terra &

8/30/2000

915 Terra continues to heat weld piping into 300' Beehives

Weather: 68°, overcast misting

0920 truck bringing second scraper arrives

0930 RMT holds safety meeting for Terra engineering

8/30/2000

1000 called On Patel
let him know work is
proceeding, Kirk
informed On that trash
is being loaded into
truck and moved to
reconsolidation area
as it is removed from
ground, and that
6" of top cover will
be removed, → On
had some concerns that
plastic should be on
ground - said its ok
without if waste is removed

8/30/00

Terra started boring at
GW-27 at approx 9:50
10:15 to base of fill
setting first part section
of pipe

liquid 13½' below grade
hit clay bottom at 17'
loader removing top 6"
of soil

8/30/00

loader placing gravel
in opening

rig moves to GW-30

10' slotted + 10'
solid riser installed
in borehole

well at GW 27
constructed with
gravel pack/bent seal/
sand/bentonite surface
seal

8/30/2000

1030 drilling through trash
at GW-30

trash being loaded
and truck to northeast
reconsolidation area as it
is augered out

1045 GW30 advanced to 22'

13' screen

10' riser

water at 13'

8/30/2000

1100 placing gravel
GW-30
9' gravel/2' bent/6' sand/2' bent
Rig moving to GW-17

1110 White Terra is drilling,
Baker crew is doing
more surveying of elevation
points

1120 Terra boring at
GW-17
drilled to 31.5

8/30/2000

screen 20'
riser 12.5'
22.5 ft gravel
2 ft bent
5' sand
2' bent.

1200 Rig moved to GW 16

trash stockpiled at GW-17
GW-16 - dump trench full of
trash then have not opened
up top of reconsolidation area
to level of trash & dumped

8/30/2000

GW-16 bored to 33'

20' perf

14' riser

gravel 22'/2' bent/5.5' sand
2' bent

1230 drill rig moved to
GW 15

---

still working to remove cap
at waste reconsolidation area
cap appears to be very thick
at that location

8/30/2000

1255 GW 15 drilled
to ~~30~~ 26'

20' perf — 22' gravel
2' bentonite
7' riser — topsoil

1120 move to GW 18

boring at GW 18

1150 boring at GW 18
completed to 39'

30' slotted
10' riser — 33' ~~34~~ gravel
4" bent

8/30/2000

1410 GW-31 being bored

1430 area stripped in waste reconsolidation zone loads of trash dumped into trench to be covered

boring 40'
screen 22'
riser 19'
top of gravel at 16' (24')
2' bentt

8/30/2000

1515 drill rig moved to GW-32

front end loader or dump truck continue to pick up waste from borings and bring to reconsolidation area

1600 49' deep

29½' screen
20½' riser

8/31/2000

7:15 am begin drilling

GW-23 ~~drilled previous night~~

41'

screen 16'

riser 26'

Drilled to date

GW-27
GW-30
GW-17
GW-16
GW-15
GW-18
GW-31
GW-32
GW-23
GW-24

8/31/2000

GW-24 drilled pm

depth 39' 8/30/2000

screen 29'

riser 12'

stone 39'-8'

2' bent seal

sand 6'-5'

seal 5'-3'

GW-23 750 am

gravel to 23' below grade

2' bentonite seal installed

Plan adding sand to 5' below grade bentonite to 3'

8/31/2000

Dallas continues to strip cover in northeast waste reconsolidation area

0800 Terra has already begun boring at location GW-20

0815 Confirmed that waste boring from all wells on 8/30/2000 was placed in recon area and covered.

8/31/2000

GW-20 bored to 45'

screen 23'

well 23'

gravel to 20'

2' bent

sand to 5' the bent to 3'

0910 rig at GW-22 boring hole

tree removal crew is removing trees a brush [illegible] area

1000. 8/31/2000
GW-22
boring drilled to 42'

screen 23'
riser 20'
gravel to 17' below grade
2' bent/sand to 4.5'/2' bent

1025 Rig moved to
location GW-21

boring at GW-21

1130 still drilling at GW-21

1200 GW-21 to 63'

8/31/2000

~~top of~~
screen ~~40'~~ 40'
riser 29'
gravel to 21'
2' bent
sand to 3'
2' bent

1210 Rig moved to GW 34

drilled to 54'
screen 43'
riser 12'
gravel to 9' below grade

8/31/2000

1350 Rig moved to GW33
drilling initiated

1430 Tree service still
removing brush & trees
from borrow area

1440 drilling at GW33
depth 45'

8/31/2000

Oakes has begun digging
in waste relocation area
to determine extent of
waste buried off the
property

1500 GW33 drilled
to 53'
42' screen
20' riser

1520 well casing set
gravel to 9'
bent, 3rd bent

8/31/2000

1530 Rig moves to GW-19

1605 GW33 completed

Joe Corns leaves site

85° Sunny

9/1/2000

arrive 7:10

Terra has already drilled GW-35 to 48'

29.5' riser } gravel to 26'
20' screen } 2' bent / 10.5' sump
2' bent

Oakes continues to scrape clean cap from borrow area

gravel being placed around well

85° Sunny

9/1/2000

7:30 rig moved to location

GW-29

0810 drilled to

33.5' encountered peat

hole collapsed to 28'

0820 Terra is setting

well screen & riser

in borehole

well screen 20' riser 11'

gravel to 6'/bent 2'/sand to 2.5/2' bent

bucket on rig had bored

over 5' into peat bottom

9/1/2000

0830 moved to GW-28

0855 boring to 27'

gravel pack used up

waiting for truck

to deliver more

screen 15' gravel to 8'/2' bent/sand to 4'/2' bent

0920 moved to GW-26

last well

0945 GW26 bored to 27

screen 15' riser 13'

Stone gravel delivered - finish wells

9/1/2000

1015 finishing well GW26

1030 placing gravel in RW 26

All waste has been moved to waste reconsolidation area and covered

gravel to 10' / 2' bent / sand to 3' in 2' bent

1100 GW26 completed

9/5/2000

arrive HOD 9:15am

9:30 Ron Marowski arrive c

9:45 Meeting held

Ron Marowski

RMT - Kirk Solberg + 2

Larry Buckel

Joe Corns

Silt fence in

borrow area cleared

Terra installed 20 wells

leak tests on piping will be conducted as sections are

9/5/2000

This week - fusing pipe
next Monday - burying pipe
condensate sumps to be
delivered next week

Waste relocate to
Start 9/6/2000 or
9/7/2000
pending delivery of
off road dump trucks

75°F Sunny

9/5/2000

discussion of what
actual final grade
should be —
RMT & WM asking that
all final grades can be
6" lower

RMT to send Ron Moronski
documentation relating to
above

---

leachate pumps to come
in in about 5 weeks

9/5/2000

Flare to be delivered in 10-12 weeks

well head vaults 3-4 weeks

Crew will start out in level C in waste relocation area

Air monitoring

PID

MSA explosimeter O_2 CH_4 H_2S

dust monitor

.1 3

9/5/2000

1030 Larry Buckel, Ron Marowski Joe Corns tour site

Scraping in waste reconsolidation area is on going

trees + brush being clear in waste relocation area

---

off road dump truck

Quarry truck delivered in

am

9/5/2000

1330 Oakes + Son laying out west access road.

1130 Joe Corns has lunch with Ron Marowski & Larry Buckel

1230

Joe Corns drops off film at Walgreen's and report at Post office, then goes back to site

9/5/2000

1400 Oakes continues clearing cover from waste reconsolidation area

9/6/2000

0800

Oakes warming up equipment begins scraping at waste reconsolidation area - already scraping at borrow area

trees cut in waste relocation area

Oakes beginning to excavate in waste relocation area digging test pits to define extent of waste

9/6/2000

Oakes with RMT directing continues to trench in waste relocation area to define extents

0940 trenching in waste relocation area completed, extent of waste defined to the east

1 9/6/2000

1000 Ron Marowski from USEPA calls - determining start date of project - Joe Cairns gives update on trenching

Terra has been heat welding pipe fittings

1100 Terra heat welding pipe fittings

Three scapers working in borrow area removing & stockpiling

9/6/2000

1105 Oakes is moving chunks of concrete and debris in waste relocation area and covering trenches

1200

Oakes maintenance vehicles on-site to service bulldozer and scrapers

broken hydraulic line on dozer

2:00 pm

Oakes clearing residual brush from borrow area, transporting with Quarry truck to reconsolidation area

9/6/2000

Roadway formed along west side of landfill with scraper & grader

cool 65°F

9/7/2000

0700

Oakes preparing equipment for morning start up

0730 Oakes stripping more cover from the waste reconsolidation area to assure sufficient room for waste relocation

0830 Oakes continues to remove cover in waste reconsolidation area

0915 Oakes continuing to remove cover from waste

9/7/2000

spoke with Bob Endress
- daily reports & QA reports are being written, however there is no electricity in the trailer at present and no printer - printed versions will be available when equipment is ready

9/7/2000

Terra Engineering &
Construction Corp
Madison, WIS

Oakes & Son
Earthwork, Site Development
Environmental Services
Racine, Wisconsin

1100 Rectangular 20K tank
delivered to pump in
leachate when waste
relocation is conducted

9/7/2000

1130 waste relocation to commence after lunch

1230 Oakes finishes lunch
- returns to waste reconsolidation area to continue stripping remaining cover from waste

sunny - 80°F

9/7/2000

1345 Oakes begins moving equipment to waste reconsolidation area

1415 Oakes starts excavating in waste relocation area

1430 Oakes excavating on west end of relocation area

1500 Oakes excavating at west end of GW reconsolidated waste - to be

9/8/00

7:30 am 78°F overcast

Oakes placing geotextile and grand over road formed along west side of landfill

Oakes loading trucks in waste ~~reconsolidation~~ relocation area

Waste ~~reconsolidation~~ relocation area extends from west property line approximately 500 feet east

width 50-60 feet from north property line width varies

9/12/2000

Oakes is taking northern 15 ft of waste from waste relocation area, finding northern edge and squaring off

8:20 Oakes continuing to remove coal in waste reconsolidation area

waste from relocation area being clumped in deepest part of reconsolidation area

9/2/2000

Dales now transporting cover material from borrow area to stockpile in reconsolidation area

cover is being transported with scraper machines

0915 Dales continues to remove waste from north edge of waste relocation area, moving east

1020 Bob from RMT plans to collect confirmational PID samples from trench formed by

9/2/2000

~~Joe Corns~~

1100 Joe Corns confirms visually that northern extent of trash has been removed in completed trench through waste relocation area

9/11/2000

0900 Joe Cairns arrives from Indiana

Oakes is hauling waste from waste relocation area to waste reconsolidation area

Terra is placing piping for LFG/leachate systems

Electrical contractors are wiring trailers

0910 scrapers equipment removing clay material from barrack area and stockpiling adjacent to waste reconsolidation area

Oakes working at west end of waste relocation

9/11/2000

Kirk Solberg assigned to other project

RMT site manager now Bob Endres

1000 Oakes continues to remove waste from west end of waste relocation area

leachate accumulating in trench - Oakes is setting up trash pump to pump leachate to tank

9/11/2000

1030 Spoke to Ron Morowski of USEPA - he stated that both Mo and Dan will be at the meeting on Tuesday at 10:00 am

1045 As waste is deposited in waste reconsolidation area, bulldozer is used to compact it.

Cover material is being deposited also in areas of landfill that have to be elevated

1100 Terra is preparing pipe run areas

9/11/2000

1115 Weather: 80°, overcast rain forcasted

1130 Oakes moving east in waste relocation area, forming a second "bench"

- continuing to remove cover from borrow area and deposit in stockpile and area being brought to final grade

- Terra continuing to prepare piping area

Terra is also preparing piping p [illegible]

9/11/2000

1140 Heavy rain moves in

Oakes crew stops working & goes to lunch

1245 Oakes crew will resume work if rain clears by 1:00 pm

Terra prepping ground for piping on west ½ of landfill. Piping on east ½ will be done after filling & grading

1250 heavy rain starts up

1310 rain stopped - Terra is dragging piping into place for installation and burial

Oakes mobilizes equipment to resume waste relocation

9/11/2000

1315 Oakes loading dump trucks at waste relocation area

1330 Terra is dragging 300' lengths of pipe into position on west side of hill

1340 Heavy rain begins falling again

1345 Oakes equipment is slipping on wet dirt roadways - they are once again halting work.

1410 Rain continues - Terra leaves site

Oakes will not haul out any more waste today

[illegible] covered

9/12/2000

0700 Oakes foreman leaving site
- no equipment operating

site very wet - rained all previous evening

Terra crew present - working with piping

This morning's weather:
60°F, sunny

0830 Discuss situation with Jim Peterson

leave site

9/13/2000

0630 arrive site

0700 Bob Enders arrives (from RMT)

Bob states that Oakes will not be hauling waste today because ground is too wet.

Oakes will survey grades

Terra will be installing piping

0730 Terra is excavating hole for condensate sump (CS-1) near entrance to landfill

RMT monitoring area with PID, ~~explosi~~ O_2 + methane

9/13/00

excavation for condensate sump must be 20' deep

0840 Terra continues excavating for condensate sump & piping

0900 Terra places backhoe in excavation - is digging waste from condensate sump location and loading it in dumptruck

9/13/00

1000 meeting at HOD

Dan Patel
Ron Murawski
Bob Enders
Joe Corns
Joel Schiffone

Ron Murawski gave approval of 2 field modification requests

1) lower final grade 0.6'
2) move condensate sump

Terra fusion welded piping is removing topsoil

removed some gas flares

removed metal casings

9/13/00

Oakes

- remodel cover
- stockpiled low perm material around waste relocation area
- relocated waste
- installed portion of west access road

RMT

air monitoring
health & safety checks
checks on subgrade

Larry Buckel –
samples results from borrow sampler received

inorganics o/2

9/13/00

soil characteristics for borrow soil will be included in cover report

After meeting Om, Ron + Joe tour site

1145 – Lunch

1230 Om conducts on site safety audit

J.C. will stay at site today until 1330
will call Bob to check

9/13/00

Joe will call Bob at 4:00 pm to check on work for tomorrow

9/18/2000

0700 arrive site
Bob Endress from RMT arrives
Oakes starting equipment

Rob from Oakes said that they will haul waste today

0705 equipment moving out

tanker truck on-site to empty trailer tank

0720 Oakes setting up trash pump to pump leachate from waste relocation area to trailer tank

0740 Oakes removing topsoil

9/18/2000

0740 Cakes removing muddy topsoil in area to be filled graded (west of waste reconsolidation area)

tanker truck leaves with full load

0750 Terra has been digging trench for gas pipeline at (CS-1)

condensate sump at southwest corner

trash being placed in dump trucks and transported to waste reconsolidation area

9/18/2000

Terra has HNU + toxic gas meter in excavation

0800 Cakes begins removing trash from waste relocation area

0820 ComEd arrives to hook electricity to trailers from nearby power pole

0825 Cakes cutting second bench along length of waste

9/18/2000

0910 RMT's air monitoring equipment (PID + O_2, CO, H_2S) has been placed in cab of backhoe

0920 Terra continues to excavate at CS-1 for gas piping - putting trash in dump trucks & transporting to waste reconsolidation area

0930 Oakes continues to grade area west of waste reconsolidation area to bring to required elevation

1000 Terra is excavating trench with 2.4% upward grade to the north from

9/18/2000

Terra has fusion welding equipment in trench to weld length of pipe to condensate sump

Oakes continues to excavate and move waste from waste relocation area

1045 Oakes continuing to remove waste from relocation area

Terra continues excavating trench for piping and hauling waste to reconsolidation area

9/18/2000

1115 Tanker Truck returns to take load from trailer tank

tanker holds 5,500 gallons

Tanker Company:

Onyx Environmental Services

1200 2nd 20,000 gallon trailer tank arrives site

1230 Truck hauling tank had difficulty dropping tank — tank now dropped

Dakes resumes excavating soil from waste relocation area — broke for lunch

9/18/2000

1300 Dakes has continued throughout the day placing cover (low perm) fill west of waste reconsolidation area

Dakes bulldozer is spreading & compacting waste dumped from waste relocation area and pipe trench

1310 Dakes now excavating at west end of waste relocation area

1340 Dakes continues to load out waste from the west waste relocation area

9/18/2000

1400 Joe Corns speaks to Om Patel about job progress, covering waste in waste relocation area - also Terra worker was in leachate pipe trench standing in leachate with no protective clothing.

Joe Corns reviewed all daily reports to date and found that they conform with work observed by EDI

weather 78°F sunny

9/19/2000

0700 Joe Corns arrives site

Bob Endress informs Joe Corns that work at condensate sump was halted yesterday and Terra engineering employees purchased boots and other safety supplies. Safety meeting to be held this morning to discuss working around leachate.

- Tanker truck arrives to drain down trailer tank
- Oakes moving cover at waste reconsolidation area - will later resume waste

9/19/2000

0725 RMT held safety meeting with Terra - discussed working around leachate and ground-fault protection of electrical equipment

0730 Terran engineering trenching in LFG main along west side of fill - clean cover is stockpiled along trench, waste is loaded into trucks and hauled to waste reconsolidation area - trench has also been branched off to connect to gas well GW-27

0740 Oakes is removing topsoil from area west of waste reconsolidation area and stockpiling. Oakes is also filling area with cover from borrow area

9/19/2000

0800 Oakes continuing to remove topsoil at area west of reconsolidation area

Terra continuing to trench in ~~path~~ pipelines

0900 Conference call with Dan Patel of Weston and Ron Murawski of USEPA - discussed man working in leachate - Joe Corns related series of events. Also discussed cover on face of waste relocation area - Ron will discuss with Larry Buckel

0930 Joe Corns finds reference to cover of waste relocation area on page 3-1 of Final Design Report - relays information to Dan Patel

9/19/2000

1000 78°F sunny

Oakes continuing to place cover fill over area west of reconsolidation area

Terra continues to trench in piping, transport waste to waste reconsolidation area

Oakes continues to excavate low perm fill from borrow area - placed in area west of reconsolidation area

Oakes has begun removing waste from waste relocation area

1030 Oakes continues to transport waste from waste relocation area to waste reconsolidation area

Terra continues trenching,

9/19/2000

1115 Oakes - waste relocation & cover fill

Terra - trenching & piping

1125 Tanker truck returns to drain liquid from trailer tank.

1215 Terra eng continuing to trench and place 8" pipe in trench, waste loaded into trucks & dumped into waste relocation area.

1230 Oakes crew returns from lunch and begins excavating in waste relocation area

1325 Oakes grading top soil cover on area west of waste ~~relocation~~ area reconsolidation

9/19/2000

1325 Oakes continues to move waste from waste relocation area

Terra continues to trench and place piping

~~1400~~
1345 Joe and Bob Endress discuss cover for waste relocation area bench cut. Bob decides to discuss with Waste Management, Weston + USEPA at tomorrows meeting

1400 Terra is backfilling trench with sand over pipe then waste (as described in Design Report) Terra has been placing gravel under piping

9/19/2000

1400 3 pipes in trench
- 3" for landfill gas
- 2" for air
- 2" for leachate

1430 Oakes continuing to remove waste from waste relocation area.

1530 Oakes continues to transport waste from waste relocation area to waste reconsolidation area - also Oakes is putting daily cover on waste

Terra backfilling pipe trench completed to date

1600 JC leaves site

9/21/2000

0730 Joe Corns contacted Bob Endress of RMT Bob stated that no work will be done today because of muddy - wet condition

9/22/2000

0715 Joe Corns arrives site

Oakes preparing to excavate soil from waste relocation area - moving in backhoe and dump trucks

Terra is clearing topsoil from area near CS-2

0745 Oakes is excavating trash from waste relocation area

Terra is excavating trash from CS-2 location, loading into trucks and transporting to waste reconsolidation area

Joe Corns had discussion with Bob Endress concerning uncovered vertical face of east end of waste relocation area

9/22/00

Bob stated RMT does not feel that face needs to be covered because it is vertical and waste exposure to the horizontal is minimal

0815 Terra has stone delivered for installation of leachate sump

Oakes continues to remove waste from relocation area

Oakes is also removing topsoil from area to be filled west of waste reconsolidation area

0830 Joe Corns has conference call with Dan Patel, Ron Murawski Carey Buechel - concerning no cover on west vertical face

9/22/2000

0900 Terra sets CS-2 to correct elevation and backfills hole

0945 Terra has completed installation of CS-2

Oakes continues to excavate waste from waste relocation area

Oakes continues to strip topsoil from area west of waste reconsolidation area and stockpile

weather 60°F, overcast

1030 Terra is working on header pipes at GW-30

Oakes continues to move waste

9/22/2000

1030 Terra connecting T-pipes for gas, air and leachate at GW-30

→ Rain begins

1100 Oakes is covering excavating area on land of relocation area - rains force cancellation of further work

1115 Oakes is moving all equipment back to the staging area

Terra has ceased work.

1130 J.C. leaves site

9/25/2000

N/O work muddy conditions

9/26/2000

0700 Terra clearing topsoil near CS-1 in preparation for piping installation

0715 Terra trenching for pipe installation

0720 Terra preparing to load trash into dumptruck while digging trench

weather: [illegible]

9/26/2000

0730 Oakes has 1 bulldozer working in fill area west of waste relocation area

Terra has man in trench to fuse weld pipe

- monitored with personal gas detector

O_2, LEL, H_2S

0745 Terra trenching through waste, placing in dump truck

0755 entire excavation in waste relocation area is filled with water

9/26/2000

0830 Bob Fraites - Joe Lorns discussion concerning water in waste excavation

- over 1 million gallons
- Oakes damming east section and pumping out
- RMT stated that water is being pumped to sump in landfill - water goes in landfill
- RMT possibly seeking permit to pump water in Sequoit Creek
- No tanker trucks hauling water in 4 to week - too muddy

0900 - Discussed with Om Patel + Ron Murawski

Ron + Om will be on-site

9/26/2000

0945 Terra continues putting in piping

1000 Oakes has 2 pumps operating discharging to sump in landfill

1015 Oakes is moving 20,000 gal trailer tanks to the east will discharge to trailer tanks with water pumped from excavation

1040 Terra continues laying in piping, trash is being hauled to waste reconsolidation area in dump trucks.

9/26/2000

1030 One 20,000 gal trailer tank empty - hauled to area near center gravel road

Oakes bulldozer clearing mud from area leading up to second 20K tank

1110 Terra continues to put in piping, fresh excavated and placed in dump truck some trash placed back into trench after sand fill, tape + wire placed over pipe

approaching location of LP-10

115 Oakes bulldozer has been clearing away mud in borrow

9/26/2000

1200 Terra Eng. has excavated trench to LP-10

south end of trench - near GW-30 is being backfilled with previously excavated cover material

1250 Terra is trenching at LP-10 - will then trench in lateral to GW-17

↓

1400

9/27/2000

0800 Terra is trenching in lateral pipe to GW-17 - placing trash in trucks - loaded trucks dumped at waste reconsolidation area

Oakes is pumping water from the east 1/3-1/4 of the waste excavation to the west 2/3-3/4 which is separated by a dam. waste relocation will be conducted in eastern section

RMT proposes to obtain permit and pump water in western section in Sequoit Creek

Oakes continues to grade & fill area west of waste reconsolidation area

9/27/2000

0830

Oakes is grading & compacting area east of east road.
- also excavating in eastern section of waste reconsolidation area

Oakes is also scraping fill from borrow area and placing in area west of waste reconsolidation area.

0900 Terra Eng. placing pipe in trench to GW-17

minimum 2% grade sloping back to main.

0930 water pumped from east end of waste relocation area

Oakes expanding waste reconsolidation area to the east

Terra placing piping at GW-17

9/27/2000

1000 Terra has piping run out to GW-17 & making preparations to continue main trench to the north toward lateral to LP-3, GW-16, LP-4 GW-18

1015 Oakes is removing topsoil and cover fill east of waste reconsolidation area to expand waste reconsolidation area - soil is being placed east of east roadway as fill

Oakes also scraping topsoil in borrow area & stockpiling

1044 Terra continuing to trench to the north - waste encountered in trench being placed in dump trucks and hauled to waste ~~relocation~~ reconsolidation

9/27/2000

1045 Terra has been continuously monitoring with combo meter on man in trench and with PID

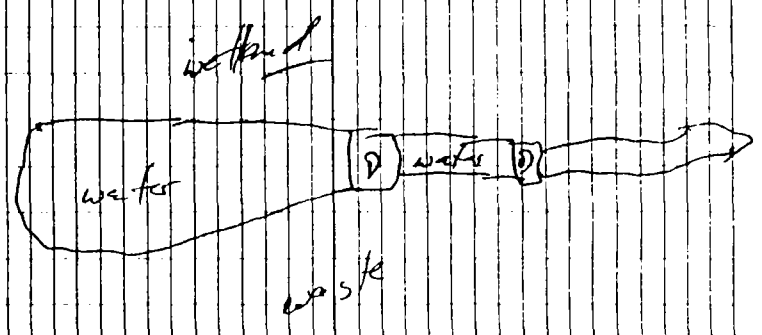
1130 ~~Test~~ Oakes placing fill on top of dam between east & west sections of waste relocation excavation and compacting

water in west end to remain segregated

1200 Terra Eng continues to lay pipe / trench to the north following procedures

9/27/2000

1245 Two dams actually constructed



1300 Oakes resumes waste relocation east of east dam - excavating waste, loading into trucks & hauling to waste reconsolidation area

1340 Water in waste relocate excavation east of dam is coming in from waste and runoff from the north wetlands

Oakes will pump to west

9/27/2000

1340 Oakes moving pump to pump liquid from base of new waste excavation to west holding pond

1400 Terra continues to trench/pipe north waste per SOP

1410 waste from trenching and waste relocation area being placed in east reconsolidation area

1430 liquid from new waste relocation excavation will be pumped to 20,000 gal. trailer tank by Oakes

1440 Oakes is excavating a north-south bench from the north edge of the waste to south

9/27/2000

1440 bench will be moved east from location covered with low perm fill at end of day

1500 Terra has installed piping to T-point of lateral to LP-3 and is beginning trenching in easterly direction

1530 Oakes to place low perm fill over waste face in relocation area and over waste reconsolidation area

9/28/200

0730 Terra trenching at GW-18

Oakes working in fill area west of waste reconsolidation area

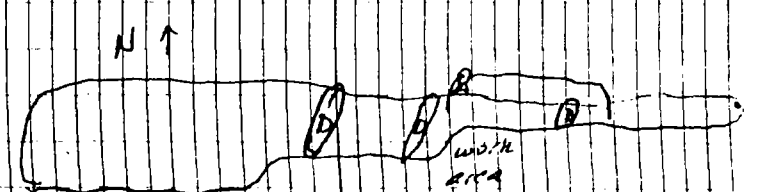
0740 Oakes removing topsoil from north of 2ND waste reconsolidation area, east of center north-south road

0800 Oakes is stockpiling topsoil from area north of 2ND waste reconsolidation area

0815 Terra trenching in 4" gas main 2" air 2" leachate from GW-18 to the west 2% grade

9/28/2000

0900 Oakes has made 3RD dam - is pumping liquid from work area to east pond



Terra is trenching west from GW-18 - trench is not deep enough to hit fill

Oakes continues to remove topsoil in area north of 2ND waste reconsolidation area

9/28/2000

0910 Oakes is stockpiling soil excavated from area north of 2ND reconsolidation area in borrow area

0920 Terra continuing to trench in pipe west from GW-18

0940 Meeting

Om Patel
Ron Murawski
Jim Crowley
Mark Torrezani
Mike Peterson WM
Jim Tinjum
Steve Wittman

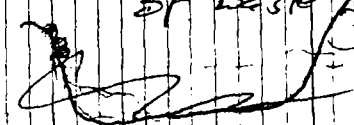
1100 walking tour of landfill with Om + Ron

then lunch

9/28/2000

1250 SC back from lunch

Oakes grading area north of 2ND waste recon area and excavating east end of waste recon area



Terra putting in piping

1350 Northwest property corner on west bank of Sequoit Creek (see photo)

Note* most of meeting centered around disposal of water in waste excavation into Sequoit Creek + permitting, creek on property, analytical parameters

9/28/2000

1400 Terra has piping laid west to GW-16

Oakes continues removing soil in area north of 2ND recon area

Oakes also removing clay cap in east section of waste recon area #1 and hitting in east road area

1430 ~~Terra has completed laying in pipe for the day~~

Terra will be on another job Friday and Monday

Terra is working on pipe near GW-16

Oakes is stripping soil north of recon area #2 and

9/28/2000

1430 Elevation of subgrade north of recon area #2 needs to be reduced

Recon area #1 is being dug out

1530 Oakes is scraping and grading in area north of 2nd waste ~~recon~~ recon area

Terra working on piping - east-west lateral as before

Throughout the day Oakes has been constructing access road to borrow area

9/29/2000

0700 Oakes warming up equipment & moving out

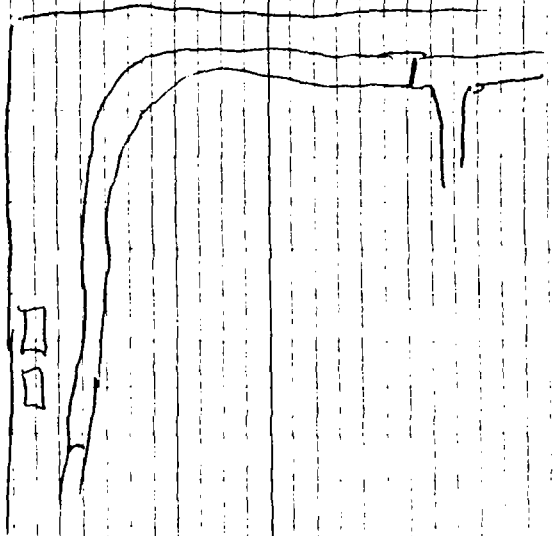
Gravel, geotextile fabric to be placed over northwest & west access roads

3RD 20,000 gallon trailer tank was delivered late 9/28/2000 - Oakes is pushing tank with backhoe into position

0730 Oakes is also compacting fill in area north of 2ND recon area

9/29/2000

0745 Oakes is placing geotextile and stone all the way around the west access road



0750 Oakes is also compacting waste and cover in waste recon area

3RD 20,000 gallon trailer tank

9/29/2000

0800 Oakes now loading + hauling waste from waste relocation area

0810 leachate from waste relocate excavation is being pumped to 20,000 gallon tank

Oakes now scraping soil & grading in area north of 2nd recon area

0900 Oakes hauling waste from relocation area, scraping & compacting in area north of 2nd recon area

9/29/2000

0930 Fed Ex delivers sample bottles for RMT

Oakes continuing as above

0950 Geotextile fabric has been rolled out all the way around to waste relocation area - trucks are delivering & dumping gravel over geotextile

Oakes is grading gravel on roadway

1015 Fence contractor arrived on site - is unloading cyclone fence materials

1130 As above

10/2/2000

0730 2 tankers (5500 gallon) take loads from 20,000 gal trailer tank

Oakes excavating waste in relocation area placing in recon area

Terra not on-site today

Oakes pumping liquid from excavation into 20,000 gal tank

60°F, overcast, drizzling

0800 Oakes grading area north of 2ND recon area

Oakes scraping & filling area south of main recon

10/2/2000

0845

Oakes running 3 dump trucks for waste relocation

0900 phone conference with Don & Ron concerning waste liquids

Additional information concerning tanker trucks

(2) took 5,500 gal from excavation

(1) took 5,500 gal from trailer tank

trailer tank then filled

leachate being pumped from immediate waste excavation to adjacent trenched area

10/2/2000

1000

Oakes continuing to remove waste from relocation area

RMT bottles arrived via Fed Ex — will sample pond & creek today

Oakes compacting waste as it is placed into waste relocation area

1030 white pick up truck from Underground Technology Inc. driving around site

1100 sky clearing, drizzle stopped

1110 tanker truck returns — pumping from 20,000 gal tank

10/2/2000

1120 second tanker arrives

1 tanker has pump and can fill from tank trailer

1 tanker has no pump — filled by mechanical pump from excavation

1145 RMT to sample creek will take 1 sample from creek 3 from pond

1245 RMT has collected water sample from creek

Oakes excavating waste from relocation area

1320 Dave from RMT is filtering metals sample at creek sample location

10/2/2000

1330 Oakes is now hauling cover from east side of waste ~~area~~ recon area and placing cover waste deposited in west area

1355 RMT has completed collecting sample at creek - moving up location on southeast ~~southwest~~ corner of million gallon pond

1410 Dave & Jim have collected sample from southeast pond except filtered metals - now being filtered.

RMT will do duplicate at same location

1430 RMT has been collecting duplicate sample at southeast corner of water pit

10/2/2000

1440 RMT collecting sample at southwest corner of big pond

1521 Sample collected at southwest corner of pond minus filtered metals sample

1530 RMT filtering metal sample from southwest corner of pond and setting up to sample from middle - north side of pond

1600 RMT collected last sample north of pond -

10/3/2000

0715 Terra on site today putting in 4" lateral for gas, 2-2" laterals for air & leachate - in area of GW-16

0730 Oakes is removing cover from eastern section recon area #1 ~~& stockpiling~~ ~~placing as cover on eastern section of recon area~~ + stockpiling on western side for later use as cover.

0740 first tanker truck arrives pumping liquid from 20,000 gal tank

Oakes is surveying elevations in area west of recon area

10/3/2000

0800 tanker truck full leaves site

900 As above

930 Oakes begins excavating waste from relocate area

1000 weekly meeting

Om Patel
Jim Crowley
Ron Muranski
Joe Corns
Larry Buchel

1030

Progress to date

10/3/2000

1032 Progress to date

piping will be completed to CS-2 today then continue to LP-1

area west & south of recon area #1 has been filled & graded with topsoil

fencing on ~~east~~ west side & southern side to start tomorrow

Don wants RMT/waste management to sample north wall of waste relocation excavation at time of cleanup sampling

↓

landfill walk

10/3/2000

lunch

1320 Terra trenching & installing pipes north of lateral

Oakes continuing to move waste from relocation area

0245 Terra continuing piping to CS-2

Oakes continuing to relocate waste & do final grading west of waste recon area

10/4/2000

0700 1" rain last night
no work today

0730 tanker truck present
to remove 3,000 gallons
from trailer tank

0830 Joe Corns to EDI
office

10/5/2000

1000 Joe Corns drove up
after checking with
Bob Endres on the
day's work status

Terre has placed piping
to northwest corner of
landfill and is heading
east

Oakes has removed topsoil
from northwest section of
landfill, is excavating low
perm soil from expansion
area of waste recon area soil
and is placing fill in
northwest area

1030 Oakes is also placing soil
and grading roadway
east west at northwest

10/5/2000

1050 Activities continue as above

1110 ~~Oakes has~~ Terra has laid piping from CS-2 through LP-1 and GW-15

1115 tanker truck on-site taking load from 20,000 gallon trailer-tank

weather: overcast, 60°F

1130 tanker full leaves site

1215 Terra grading area where piping was installed

10/5/2000

1230 second tanker truck filled with pump from waste excavation

1300 Oakes expanding waste recon area and putting fill in northwest section of landfill (fill from waste recon area)

Terra continues to install piping

1340 Terra continuing piping to LP-2 & GW-31

Oakes filling & grading area in northwest section of

10/5/2000

1400 Oakes pumping leachate from waste excavation to trailer tank —

will build berm at toe of waste relocate area then work east

1445 Ron Muranski calls, says RMT to collect additional samples on 10/6, wants Joe Carr to oversee sample collection

10/6/2000

0730 Rain last night RMT & Terra not working

2 tankers on-site to collect leachate

1st tanker being pumped to from excavation.

0900 Total of 4 tankers this morning

1100 Brian Jacobs collecting samples for Hex-Tri Chrome, BOD, pH sulfide

Comp - 3 points on pond

1 Stream Blank Dup

10/9/2000

0700 Terra Engineering preparing to put in pipe

Oakes warming up dump trucks and other equipment

0715 Terra excavating for piping at GW-31

Tanker truck arrives to remove leachate

0730 Oakes scraping soil in northwest section of landfill

Tanker truck was removing leachate from onsite leachate tank

0800 10/9/2000

Oakes begins hauling waste from relocation area

0810

Oakes now removing fill from waste relocation area and placing in relocation area to build dam

0840 Old leachate tanker being prepared for removal

0910 old leachate tanker moved to location near

0910 10/9/2000

Dales again moving waste from relocation area to recon area.

0920 2ND Tanker arrives to remove leachate

leachate will be pumped directly from excavation

0930 Terra hooking up piping to two former leachate sumps and GW 31

↓

MHE

MWW

10/9/2000

0930 Rmt indicates that old tanker will remain onsite to provide additional capacity when leachate system is on-line

1030 Dales continuing to move waste

Terra has crossed road and is moving ~~west~~ east with piping along north side of fill

3RD tanker removing leachate

1100 As above

10/9/2000

1100 as above

1120 2 Tanker leaves

- Oakes removing waste
- Terre continues with piping

1200 Tanker on site

1300 Oakes loading waste from relocation area etc.

Terre moving on with piping to the east

1315 Fence contractor installing fence on east side of fill

10/9/2000

1325 Terre has crossed road with piping and is moving on along north ~~boundary~~ side toward lateral to GWF-2

1345 Oakes moves to new area to excavate additional fill

1355 Oakes building bigger dam in pond area relocation area, east end

10/10/2000

720 tanker truck takes load from 20,000 gal tank

2 up tank being loaded from excavation

Oakes relocating waste

Terre continues installing piping toward CS-3

750 Terre will put in lateral to GWF-2, GWF-8, GW-24

0800 Terre encountering waste in lateral excavation - is placing in trucks and hauling to waste relocation area

10/10/2000

0800 Terre is monitoring air quality in trench with PID, multimeter (O_2, H_2S, CO) ~~and~~

Excavation is approaching GWF-2

0915 Tanker pumping liquid from trailer tank

0940 Tanker arrives (no pump) will be filled from excavation

Terre continuing lateral pipe to GWF-2 etc

10/10/2000

~~0940~~

1000 Tanker being filled from excavation

Bulldozer pushing topsoil down slope on south side of landfill - location for piping

Fence contractor working on east side of landfill

1100 Oakes placing fill at northwest side of landfill - will eventually slope to waste relocation area

10/10/2000

1200 Tanker on-site - being filled from excavation

Oakes contractor placing fill at northwest side and relocating waste

Terra contractor piping in lateral to GWF-2, GWF-8, GW-24

Also - scraping topsoil on east side of landfill

1230 Oakes surveying in roadway at north side of landfill

10/10/2000

1230 Terra continuing to put in piping lateral as per plan

1300 All as above

Oakes filling & grading at northwest side of landfill

Tanker arrives - drawing liquid from 20,000 gallon tank

1330 Bob Endres of RMT informed by Joe Corns that dust on roadways is an

10/10/2000

1330 Bob also informed to continue covering waste at the end of the day as ~~planned~~ specified

1400 Tanker truck on-site 4 tankers x 2 loads each today

1430 Terra almost to south side of landfill with piping lateral

1440 As previous, waste found in trench loaded into dump truck and placed in

10/10/2000

1445 Oakes continues waste relocation

1450 Oakes continues filling of northwest side of landfill

10/11/2000

0730 Tanker truck loaded from excavation with pump (200 tankers)

Oakes placing fill in northwest section of landfill

Terra laying in lateral piping near south end of landfill

Oakes moving fill from waste near area to east of east road

0845 Oakes is opening up additional space in reconsolidation area

10/11/2000

0850 3RD Tanker truck arrives

0915 4TH tanker arrives

Terra placing piping across southern roadway

trash encountered in excavation is being loaded into dump truck and hauled to recon area

1000 late yesterday, Oakes excavated ~~a~~ area on west side of soil mound east of waste relocation area - all black soil to depth of hole - (?)

10/11/2000

1000 Terra installing risers at Bldg 24 - trenching across road

1045 meeting
Larry Burchell
Bob Endres
Mark Terrazzini
Don Patell
Ron Miranski on speakerph

1200 Don + Joe Cornu tour site

1300 Terra piping across south road

[illegible] waste

10/11/2000

1340 Oakes filling northwest section of landfill, expanding waste recon area

1400 tanker on-site - removing liquid from 20K tank

10/12/2000

0730 Oakes moving topsoil from stockpile area so that Terra can install piping

Terra installing piping in northeast section of landfill

Spoke to Dr. Ron Murawski concerning dust and waste when trenching

Tanker on site

Oakes scraping + grading northeast section of landfill

0830 Oakes piling topsoil from stockpile to northwest corner of landfill

10/12/00

0900. 2 Peterson site

RMT to do sampling in open waste relocation area

removing liquid from east 20K tank

0945 Terra piping across northeast side of landfill

3 dakes installed at T where lateral to AWF-2 meet northern east-west main

10/12/2000

1000 Dakes to smash metal containers, load, and load metal piping + debris for burial in landfill

1100 Dakes setting up to start loading out waste from relocation area

1130 Bob + Brian from RMT screening samples from waste relocation area (screening with PID)

1230 RMT continues screening samples

Dakes relocating wase

Terra piping along northeast side

10/12/2000

1445 Oakes also scraping up soil from borrow area

Oakes also cutting & scraping NE section of landfill, also filling from borrow area

1330 RMT has screened soil samples with PID (collected from north excavation wall)

Now will collect lab samples

Oakes continues grading, scraping fill etc. in northwest section of landfill

Soil from borrow area

Terra continues piping east along north side

10/12/2000

1400 Brian from RMT collects sample from west end of excavation

1415 Brian collects shallow sidewall sample from 50' from west end, north side

1440 Brian collecting deep sidewall sample (7.5') at 350 east of end

1450 Two tankers on-site

1500 Oakes continues waste recon

10/13/2000

0730 tanker on-site, filling up from west 20K tank

0740 2nd tanker arrives site

Oakes is building berm in waste excavation at east end of remaining waste plug

0800 Terra putting in concrete sump near location of new underground storage tank

0820 Bob Endres will place air monitor on northeast side of landfill

0830 Oakes is excavating fill from waste recon area and berming area east of remaining waste plug

10/13/2000

0900 Terra working in piping area on northeast side of landfill

Oakes continues to place low perm material on east side of clay plug

Oakes is also scraping top soil from the borrow area and stockpiling in the borrow area

1000 Terra is now working to convert MHE & MHW to leachate/gas wells

1030 Terra building well at MHW

10/13/2000

1030 Dust conditions: site extremely dusty, vehicles throwing up much dust in air.

1130 Terra working at MHE + MHW

Oakes continues to build berm in relocation area, scrape + stockpile top soil

3 tankers X 2

10/16/2000

0700 Thick fog over entire site, no one working yet - First tanker leaves with load

0720 fog lifting, Oakes scraping topsoil in west section of landfill, preparing to excavate waste

0800 Oakes is excavating waste

Terra putting in piping on northeast side of landfill

water levels in all sections of waste excavations are high

Discussed dust problem, dust monitoring with Em Patel

10/16/2000

0830 Terra at GW-33 moving east to next lateral to GWF-4, LP-8-GW-20

Piping trench monitored for O_2, CO, H_2S

0845 Dust monitor in place near Terra work zone

3 tanker trucks will make 2 trips each today

0845 2nd tanker leaves

0900 Oakes relocating waste & scraping topsoil in west section of landfill

10/16/2000

0930 Terra trenching in waste, loading waste in garbage trucks and hauling to west recon area

1030 3rd water truck

Oakes relocating waste

Terra continues trenching toward CS-3

1100 Oakes removing soil from the borrow area and placing in the western section of the landfill & grading

1145 tanker returns to site

3 tankers X 2 today

10/16/2000

1300
Oakes relocating waste from east side of remaining plug of waste

Terra installing Tee to lateral across landfill to GWF4, LP-8, GW-20

also installing valve set

Oakes continues to scrape soil fill from borrow area and place at west side of landfill

1315 Oakes now excavating fill from waste recon area to add to berm in refuse area

1140

10/16/2000

1500

Oakes relocating waste from Central area

Terra installs Tee with valves

Oakes continues excavating soil from borrow area & placing in western section

cool & moist all day

dust not an issue

10/17/2000
foggy, cool

0715 Oakes placing soil & grading in west section of landfill

2 tanker trucks being loaded

Oakes smashing metal containers and placing in landfill

Terra installing piping at northeast T/valves

0730 Oakes to build dike on west side of waste plug to prevent water from seeping through

Oakes transporting soil from borrow area to east side

10/17/2000

0830 Terra excavating at location of CS-3

monitoring with PID, combo meter (O_2, CO, H_2S)

Dust monitor positioned near Terra work zone at northeast side of landfill

Trash from excavation placed in dump truck and hauled to waste mgmt area.

0900 Oakes continues building berm and placing fill in west section of landfill

Terra installing CS-3

placing stone in excavation to bring bottom to proper elevation

10/17/2000

0930 Terra set CS-3 to proper elevation and is backfilling with stone.

0945 3 tankers this morning each will make 2 trips

Oakes continues to build berm on west side of waste plug

1045 Oakes continues to build berm

Superior waste hauling tanker leaves site after picking up load

1130 Terra has CS-3 installed excavation filled with gravel now trenching east

1130 Oakes continues building berm on west side of waste plug

Roads drying - dust starting to pick up

Sunny clear skies, warming

1230

Oakes has berm built on west side of waste plug, starts relocation of remaining waste

Terra continues trenching to the east from CS-3

1330 Oakes continues excavating waste at relocation area

Terra continues piping to the east

1400 Oakes continues waste relocation

Terra continues adding piping east of CS-3

conditions drying - dust starting to kick up

1440 Oakes has been removing & stockpiling top soil in borrow area

1500 Oakes also placing soil in east section of west 1/2 of land (1)

CURVE TABLES

HOW TO USE CURVE TABLES

Table I. contains Tangents and Externals to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20′ to the R. at Station 542 + 72.

Ext. in Tab. I opposite 23° 20′ = 120.87
120.87 ÷ 12 = 10.07. Say a 10° Curve.

Tan. in Tab. I opp. 23° 20′ = 1183.1
1183.1 ÷ 10 = 118.31.

Correction for A. 23° 20′ for a 10° Cur. = 0.16
118.31 + 0.16 = 118.47 = corrected Tangent.

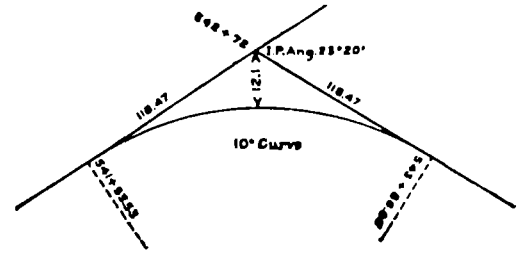
(If corrected Ext. is required find in same way)
Ang. 23° 20′ = 23.33° ÷ 10 = 2.3333 = L. C.

2° 19½′ = def. for sta.	542	I. P. = sta.	542 + 72
4° 49½′ = " " "	+50	Tan. =	1 .18.47
7° 19½′ = " " "	543	B. C. = sta.	541 + 53.53
9° 49½′ = " " "	+50	L. C. =	2 .33.33
11° 40′ = " " "	543 + 86.86	E. C. = Sta.	543 + 86.86

100 − 53.53 = 46.47 × 3′ (def. for 1 ft. of 10° Cur.) = 139.41′ = 2° 19½′ = def. for sta. 542.

Def. for 50 ft. = 2° 30′ for a 10° Curve.

Def. for 36.86 ft. = 1° 50½′ for a 10° Curve.



Projects (continued) .....

10/10/2000

0715 Dakes relocating waste

0725 2 tankers so far this morning

Terra installing 4" lateral to GWF-3

0800 Capable concrete on site laying out pad for gas flare building

0855 3 more tankers arrive - 1 Superior 2 WM

Dakes also scraping borrow soil & filling in east sector of western half of landfill

10/18/2000

0900 Terra putting in lateral to GWF-3 then to GW-19 + GW-25 + CS-4

1000 Terra has piping to GWF-3, now excavating lateral to GW-19, GW-25 + CS-4

Oakes continues to remove waste from reconsolidation area

Oakes filling + grading east side of western half of landfill

1100 Oakes continues to excavate waste

Brian from RMT on site will collect 4 confirmational samples + /

1100 Waste removal nearly complete

Terra putting in lateral to GW-19, GW-25, CS-4
CS-4 will be installed later

Dust on roads now becoming a problem

1200 Oakes breaks for lunch

Most waste removal nearly complete

1230 Waste recon area full

Oakes to excavate to make room for additional waste

1245 Terra at location of GW-25

10/18/2000

1245 Oakes continues to fill + grade east part of western section

1310 Terra starting back at southwest corner of landfill to put in southern leg of piping

1400 Rich to collect 3 confirmatory samples today

250 base + sidewall
350 base

1430 Brian collects sample at +350 base

Today - 3 trucks 2x
3 trucks 3X

10/18/2000

1440 Brian collecting sample at +250 sidewall

1500 Brian collecting sample at +250 north base

10/19/2000

0715 5 tanker trucks on site

Terra excavating at southwest corner of landfill

Terra moves old tanker truck to other side of road

0730 Oakes is filling + grading in east central section of landfill

Terra will pump liquids from excavation at CS-1 into old tanker

Terra must install a T on CS-1

10/19/2000

0740 Oakes is excavating fill from north end of waste recon area to provide additional space for waste

Fill is being stockpiled and graded west of recon area

0755 Concrete pad in southwest section of landfill being poured

0830 As above

0840 Oakes completes expansion of waste recon area, moves equipment to waste reclamation area

10/19/2000

0900 GH tanker on-site

Oakes relocating waste.

1020 Meeting

Bob Endres
Ch. Patel
Ron Muravski
Jim Crosley
Larry Buechel
Jack Dowden

1400 Oakes removing last waste from relocation area and building up berm on east end of pond

↓

1500 Terra had breakdown - not working

10/20/2000

0700 Terra preparing to pump liquid from CS-1 excavation to old tanker

will install T and take out piping

0730 No liquid hauling - Kim morning - chase waste in a tanker yesterday caused problem at treatment plant

Oakes to backfill east end of excavation

0800 Terra at CS-1 placing trash in dumptruck

10/20/2000

0900 Oakes continues to bring soil from borrow area to fill east section of waste relocation area

Terra working at CS-1 have to get new pump to transfer liquid from waste excavation

0924 Terra pumping liquid to old tanker

excavating trench for take off pipe

0930 Dust control vehicle delivered to site

10/20/2000

0945 Oakes has been backfilling east section of excavation with borrow soil

1000 Oakes also scraping & grading in west section of landfill

1030 Spoke with Ron Murawski OK to take water from Sequoit Creek to use for dust control

1100 Oakes filling dust control vehicle with water, will start watering roads

10/23/2000

0715 Oakes moving out vehicles to begin work

Terra pumping liquid from excavation at CS-1 to old tanker & trailer tank.

0725 Oakes placing fill over west section of landfill

Terra putting in piping past of CS-1

waste put in dump trucks for transport to recon area

Oakes excavating soil from borrow area and placing fill over waste recon area

0800 Jim Crowley of RMT to do density tests

10/23/2000

0825 Jim conducted 3 density tests on cover of waste recon area that has 2' of cover (west side)

All density tests > 90%

0900 Terra putting in piping east of CS-1

- Oakes continues spreading soil in west section of landfill

Oakes continues placing cover over west recon area

1000 As above - no tankers today - problem at treatment plant not resolved

10/23/2000

1010 light drizzle conditions
work continues

Terra's backhoe blow hose
being repaired in field

1030 Terra continues trenching
east across access
road, installing piping
east of CS-1

1100 Oakes continues putting
cover over waste
recon area in 1 ft
lifts - western section
has 2' cover

Terra placing waste from
trench in dump trucks
and hauling to
recon area

10/23/2000

1100 Oakes continues to place
~~over~~ fill in western
section of landfill

1145 Oakes continues placing
fill over west section of
landfill

Oakes continues placing
fill ~~of~~ over waste recon
area

Terra continues trenching
and placing pipe east
of CS-1 - Trash put in
dump truck and hauled
to waste recon area

1300 as above

1330 as above

10/23/2000

1500 Dug two test pits in wooded area east of waste recon area

soil profile consisted of 3'-4' black peat like soil, then light brown sand to 12'

began raining at 2:30 pm

10/24/2000

Tommy Dizzler 2 haulers fill

Terra trenching in piping to the east, garbage encountered placed in dumpstuck + hauled to recon area

Dakes not working today, rain last night

0810 Terra is trenching east toward CS-26

waste loaded into truck and hauled to recon area

Terra backfilled area east of CS-1 to across road with trash + low perm fill

10/24/2000

0900 Terra continues trenching east as above

Larry Buechel WM
Jim Tinjin RMT
arrive

3RD tanker arrives site taking liquid from 20K tank

0910 Dales backhoe is removing clay to expand waste area for deposition of waste from trench

Terra bulldozer spreading waste & covering

10/24/2000

0940 Meeting

Larry Buechel
Ron Murawski
Jim Tinjin
Jim Crowley
Joe Corso

Tank installation scheduled for Nov. 9

1230

Terra continues piping to the east and placing lateral to GW-26, moving on to GW-28

10/24/2000

1245 Two tankers left site with loads from 20K tanks

1430 Terra trenching toward GW-28

Per Ron Murawski —

RMT to collect 3 soil samples from wetland north of waste trench

analyze for metals

10/25/2000

0720 Two tankers loaded & gone

Oakes putting fill over waste area (fill from borrow area)

~~Terra continues piping to GW-28~~

Oakes filling grading + scraping in west section of landfill

Terra putting in lateral to GWF-4, LP-8, GW-20

conditions: dense fog 58°

waste from trench put in dump trucks for transport

10/25/2000

0820 Tanker truck leaves with load

Oakes grading & scraping in west - southern section of landfill

0920 Same as above

Small pond at waste recon area being pumped out - close to being drained

Oakes continue to haul soil from the borrow area to the waste recon area and place cover

Oakes scraping, grading & filling in west section of landfill

10/25/2000

0920 Terra continues pulling in lateral across

1000 3 more tankers at site

all as above

1015 Terra continuing lateral from north to south side of landfill

Oakes continuing to put cover over waste recon area

Oakes continuing to grade cut + fill west section of landfill

1110 As above

Water across basins pumping

10/25/2000

1200 Terra continues trenching lateral south + installing piping

Oakes continues placing cover on waste recon area and grading, scraping + filling west section of landfill

1300 Terra piping found LP-8

LP-8 damaged - Terra will excavate around and make repairs

Oakes continues placing low perm fill over waste recon area and scraping, grading, filling in west [illegible] landfill

10/25/2000

1330 As above

1430 Oakes as above

Terra excavates to LP-8
Top 2' of well broken off
excavated down, well ok

1440 Tanker on site -

Oakes has continued pumping water from smaller pond to 20K tanks

small pond almost drained down

10/26/2000

0730 Oakes pumping liquid from small pond to 20 K tanks

0800 Oakes taking low perm soil from borrow area and putting cap on waste recon area

Terra piping at GW-20

0830 Oakes continues placing low perm fill over waste recon area

Terra piping across south road

0900 Oakes fill scraping grading in west section of landfill

10/26/2000

0900 Oakes continues to place fill over waste recon area

Terra piping across south roadway past GW-20

0930 Terra moving to northwest corner of landfill to continue putting in main around corner and down east side of landfill

0950 Tanker truck arrives pumping liquid from 20K tanks

1000 Oakes has bulldozer in small pond - scraping clearing bottom

10/26/2000

1015 RMT to collect background soil samples

1016 RMT collects 1st background sample north of east section of waste rel. area

1019 RMT collects 2ND background sample north of eastern 1/3 of waste rel.

1020 RMT collects 3RD background sample north of middle of waste rel

1022 RMT collects 4TH sample north of west 1/3

10/26/2000

1024 RMT collects 5TH background sample north of west 1/3

1026 RMT collects 6TH background north of center of large pond

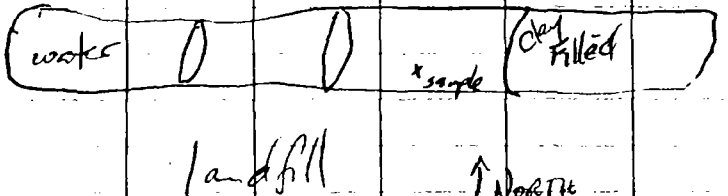
1028 RMT collects 7TH sample from area north of west end of big pond

1030 RMT collects 8TH background sample from creek bank

10/26/2000

1040 RMT to collect closure sample from bottom of small pond just emptied

wetlands



landfill

↑ North

1100 sample collected

1110 Terra trenching at NE corner of landfill

Oakes continues to place cover over waste recon area

10/26/2000

1200 Terra continues trenching east around northeast corner

Oakes having lunch

tanker on site pumping from 20K tank

1220 waste from pipe trench put in truck + placed in recon area

1240 Oakes scraping grading fill in west section of landfill

1330 Tanker truck takes load from 20K tank

10/26/2000

1440 Terra now piping south along east side of landfill

Oakes continues scraping grading filling on west side of landfill

Oakes continues placing cover over waste recon area

1500 As above

10/27/2000

Rain previous night

No work today

10/30/2000

0700 Oakes & Terra warming up equipment

0720 Oakes putting cover on waste recon area

soil from borrow area

Terra piping south across east side of landfill to GW-21, GW-22

0730 Oakes removing topsoil from 2nd waste recon area

0800 Terra moving 20K tank to UST location — will begin excavating for UST

10/30/2000

0815 Terra past GW-21 with trench, moving to GW-22

Safety protocol followed for monitoring

0840 1 20K tank from waste excavation, + 20K tank from southwest corner moved to UST location

All else as above

0910 Oakes putting topsoil from 2nd waste recon area ~~on stockpile~~ on western section of landfill

RMT performing density tests on cover over waste recon area

10/30/2000

0920 Terra trenching & piping to GW-22

1000 Bob Endress performed 4 neutron density tests over recon area cover — all passing

1020 Terra encountered waste in trench — now loading in dumptruck and placing waste in 2ND recon area

1030 Oakes completing cover over waste recon area

clay from borrow area placed in 1 ft lifts & compacted

10/30/2000

900 Bob Endress to collect shelby tube samples of cap over waste recon areas for perm tests

1110 Oakes placing topsoil over western section of landfill

Topsoil being removed from 2ND waste recon area

1200 Terra now trenching ~~north~~ west along south side of landfill

1250 Oakes continues placing cap over waste recon area

10/30/2000

1230 Oakes continues placing topsoil over west 1/2 of landfill

↓

1400 As above

10/31/2000

0700 Oakes putting topsoil on northwest section of landfill

Oakes excavating fill at 2WD recon area

Oakes running water truck to wet down roads

0720 Oakes dumping fill from 2WD waste recon area into 2WD excavation from west

Terra trenching + piping along south side of landfill going west – waste put in dump truck + taken to 2WD waste recon area

Terra putting in valves + connection to lateral across to Group II D.R. BW-4

10/31/2000

0745 Oakes transporting fill from 2nd waste recon area to waste relocation excavation, placing topsoil & grading west section of landfill

Terra continues piping west along south side of landfill

0815 all as above

0830 Bulldozer in waste rel excavation spreading fill

0910 leachate percolating into piping trench — Terra moving tank & pumps

10/31/2000

1000 20K tank moved from UST location to trench on south side

Terra has pump & generat. set up to pump

1040 trench dry excavation - piping continuing

Oakes continues excavating fill in waste recon area placing fill in relocation excavation

Oakes continues placing topsoil on west ½ landfill

10/31/2000

1245 As above

Terra past area where leachate entering trench — appears to be leachate spring discharging through landfill to wetland

1300 Oakes continues expanding waste recon area & filling ref. excavation

Oakes continues placing topsoil over west section of landfill

Terra continues aging

10/31/2000

1400 ~~As above~~

waste excavated into trench for piping placed in new recon area.

Oakes now taking fill from the borrow area to fill waste excavation

1500 Terra backfilled trench needs to move 200 tank over,

Oakes ~~Allcate~~ as above except placing topsoil

11/1/2000

0700 Terra to install CS-4

2ND 20K tank moved to Terra work location, trench filled with leachate, Terra pumping to tank

Oakes placing topsoil over eastern 1/4 of landfill and waste recon area

Terra placing waste from trench in 2ND recon area

Oakes filling rel. excavation with soil from borrow area

0800 As above, Oakes also placing topsoil over northwest section of landfill

Terra digging excavation

11/1/2000

0845 Terra trenching & digging excavation for CS-4

waste trucked to 2ND waste recon area

Oakes continues backfilling waste

0915 Oakes placing topsoil over northwest section of landfill

1030 Oakes as above

Terra digging Tee trench to tie into lateral to GW25

also trenching for CS-4

11/1/2000

1030 Oakes removing & stockpiling topsoil in northern section of west quarter of landfill in anticipation of filling & grading

Oakes continue filling waste relocate area

1100 Terra excavating for CS-4 and lateral Tee

waste removed to recon area #2

1200 Terra has CS-4 in ground placing stone around it

Terra will begin installing Tee & other connections to main and lateral

11/1/2000

1245 Oakes continues to fill waste relocation excavation with borrow area soil

1330 Terra connecting Tees to main, lateral, CS-4

Oakes continues filling waste excavations

Oakes placing topsoil over waste recon area #1

1415 Terra continues piping from Tee to lateral to GW-25

Oakes placing topsoil over waste recon area and stockpiling soil in central

11/1/2000

1430 Oakes continues placing fill from borrow into waste relocation area

1500 as above

11/2/2000

0700 Rain - Oakes not working

Terra not installing piping today - will assemble well heads in trailer

1000 Meeting

Ron Murawski
Om Parkel
Bob Endres
Larry Buerkel
Joe Corns

11/3/2000

0630 Bob Endres / Oakes collect 2 bottom samples, 1 sidewall sample from big pond with backhoe

0700 Tanker on site draining 80K tank near waste relocate area

Joe Corns leaves site

11/6/2000

0700 RMT has three pumps set up at pond

geotextile sock set on creek bank — pumps discharge to sock then trickle over bank

sock is approx 10' x 20'

Oakes backfilling + grading most sections of waste relocate area (all except pond)

Terra piping + trenching south of UST location

0800 RMT adds fourth pump

2 gas

2 electric

11/16/2000

0815 Dakes putting topsoil & grading on east section of landfill

Blower Terra piping lateral to ~~GW-20~~ and main past GW-28

trash encountered in trench being trucked to 2nd waste recon area

2 tankers this morning to drain tank stationed at CS-4

0915 As Above

0930 As Above

11/16/2000

1000 Dakes putting topsoil over fill in waste relocate area

1100 Terra put 90° Elbow at GW-28 and is trending/piping north

Dakes as above

1200 pumping of pond continues

all else as above

1400

11/17/2000

0700 RMT & Oakes setting up pumps at pond

Oakes excavating cover fill at UST location and stockpiling in southwest section of landfill

0750 As above

1 gas engined pump broke down

0900 Oakes has covered stockpiles from UST excavations

now excavating waste, loading in trucks and taking to waste recon

11/17/2000

1200 As above

pond 95% drained

1330 As above

pond 98% drained

1500

~~11/8/2000~~

~~0730 Terra directing digging of UST excavation~~

~~cakes digging work and transporting to work zone area~~

~~safety monitoring protocol followed~~

11/8/2000

0730 UST excavation dug & bottom graded

Terra is setting forms for dead man anchors

0930 J.C. leaves site

11/9/2000

Rain No work

1000 Meeting

Ron Murawski
Larry Buckel
Bob Andres
Mark Torrezani
Joe Corns

11/15/2000

0700 Terra to cap some wells & pipe & then conduct pressure tests

Terra placing sand over last section of piping — west of center access road

0800 Terra welded air couplings to piping at GW30 — will test entire system at one time

Terra pushing dirt over last section of pipe trench

11/15/2000

0820 Terra putting caps on uncapped piping

0915 Terra pressurizing 2" force main ~~airline~~ at GW-30

Waste management truck hauling out old leachate tanker trailer

2" lines to 125 psi for 1/2 hour - can lose 10%

11/15/2000

0941 2" force main pressurized to 125 psi

Now pressurizing LFG main to 5 psi

0955 gas main pressurized to 5 psi

1025 force main & gas main pass - held pressure

11/13/2000

1030 air main pressurized to 120 psi

1100 pressure held

11/17/2000

0700 Carlos has bulldozer in west section of waste excavation to clean up waste

0800 Bulldozer pushed all waste to west side of excavation. trucks bringing in fill & dumping

Terra digging excavation for well head and vault at BWF-3

11/17/2000

0815 Oakes continues to backfill excavation

Terra backhoe going well to well & excavating holes for well heads & vaults

1000 ~~As above~~ Terra installing well head & vault at GWF-12 - 3100 one today

11/17/2000

1020 Oakes as above

↓

1500 Oakes backfilled excavation

Terra left site at 1200

11/18/2000

0630 Oates warming equipment

Oates to excavate waste from excavation and place in 2nd reconsolidation area

0700 Oates bulldozer leveling ground for trucks & backhoe access and grading section of excavation that was backfilled

0745 Oates cleaned remaining waste from excavation

11/18/2000

0745 Oates will put silt socks in truck for disposal, then backfill

0800 Oates backfilling excavation

11/20/2000

0700 Oakes to place cover over 2ND waste reconsolidation area

Terra to install well heads & vaults

0730 Oakes excavating cover soil from borrow area and placing at waste recon area #2

0830 Terra installing well heads & vaults

Oakes as above

11/20/2000

0700 Oakes running compactor over waste recon area

Recon area 1/2 covered with 1 ft 1 ft

RMT conducts 2 neutron density tests both pass

1000 Oakes placing cover over 2ND half of waste recon area

Terra has been placing well head

11/20/2000

1050 Oakes now placing 2nd lift over recon area

RMT to perform density tests

Test over 95% at 2 locations

Terra now placing well head & vault at GWF-4

1150 Oakes continue placing second lift over waste recon area

11/20/2000

1050 Oakes continues placing fill over 2nd waste recon area

Terra continues working on well heads & vaults

1315 UST arrives at site

1340 RMT performing 2 more density tests over last lift of soil over [illegible] area

11/20/2000

RMT performed 4 density tests on each lift

Terra has been putting risers on valve stems

11/21/2000

0700

Terra excavating at LP-11 to install well head & vault

Oakes is filling area ~~north~~ south of 2WD waste recon area

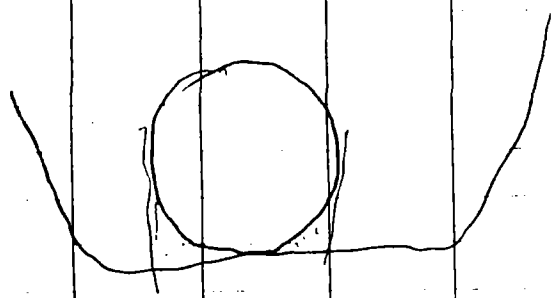
Crane to MPA UST due to arrive at 0900

0800 As above

0815 Terra excavating openings at LP-3, GW-16, LP-4, GW-18 installing well head at LP-11

11/21/2000

0800 crane arrives on site



0845 Terra setting up for crane lift of tank

Oakes continues placing fill south of 2ND decon area

11/21/2000

1000 Tank set by crane

1015 Weekly meeting

Larry Buckel
Bob Andress
Om Patel
Ron Muranoski
Jim Tinjum
Joel Setoni

11/22/2000

0645 RMT / Oakes
dig out & clay
fill 4 leachate
seeps

0900

11/27/2000

1145 Terra backfilling UST
excavation with sand

Terra putting well heads
& vaults on wells

Oakes not working today
site very muddy

Bob Endress shooting
elevations of well head
flanges to determine
length of drop cords
for pumps - all pumps
to be 757 msl

1430

11/20/2000

0730 Terra preparing to install piping & manway on top of UST

1030 Terra installed manway vent pipe, monitor port ~~tot~~ interstitial riser

now digging trench for leachate force main

Terra has also been installing well

11/21/2000

1000 Terra installing UST piping

11/30/2000

Terra to do just well heads today

No Oakes

12/5/2000

0700 Very cold

Oakes preparing equipment to put clay caps on UST

Terra installing well heads & vaults 4' remain

12/5/2000

7:30 Oakes moving clay cover to tank area with scraper —

Terra bulldozing cover into place

Terra continues placing well heads & vaults

Terra compacts each 1 ft lift with roller/compactor

1100

1400 Bob Endress —

2 mitron tech 1 shelby tube

12/6/2000

0100 Discussion with Bob Endress concerning QA geotech samples

Oakes is filling area east of UST

Terra is setting valve stems